

The Curaçaoan economy in relation to other small island states

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The research was carried out by professor Roger Hosein, lecturer at the University of the West Indies. The findings and arguments herein do not necessarily reflect the official views of the Ministry of Economic Development, VNG International or BZK but are based on the research carried out by professor Hosein. This document is published under the responsibility of the Secretary-General of the Ministry of Economic Development.

The propose of the study was to investigate the macro-economic structure of the Curaçao economy compared with other small islands developing states to have an idea of the gap in economic development and to garner an understanding as to how to close the gaps. Based on the results, the research provides better insights into macro-economic investment opportunities, with accompanying policy conditions as a result of the economic interventions in other small islands developing states in order to realize the intended growth and development for Curaçao.

The study also provides a look at both the structure of trade regarding the capacity to earn foreign exchange and the structure of production regarding the stability of economic growth.

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Executive Summary

This research effort focuses on an understanding of the Curaçaoan economy both in terms of its own macroeconomic values and its macroeconomic numbers in relation to other small developing nations (and larger economies). The first chapter looks at the economic growth performance of Curaçao and identifies that the economy's real GDP between 2020-2028, is expected grow by 27.8%.

The distribution of output shows that both the manufacturing and agricultural sector in Curaçao contracted between 2011 and 2022 and by extension the services sector became even larger. The fiscal situation is such that after many years of deficit the Curaçaoan economy is expected in the medium-term to return favorable fiscal numbers and debt-to-GDP is expected to fall as nominal GDP increases, in the context of the projected numbers from the IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions (2022).

Significantly, the population of Curaçao has been contracting and as it stands Curaçao is ranked 7th in the world in terms of countries with the highest level of population decline, between 2016 and 2023.

From a balance of payments perspective, the current account balance of Curaçao has persistently been in deficit and this is largely attributed to the goods account experiencing a relatively high deficit in relation to the favourable balance recorded in the services sector. Foreign direct investment continues to flow into the economy particularly into the tourism sector.

The country is currently in the process of signing several partial scope agreements including with the Dominican Republic and T&T and agreements with several other countries are underway including Colombia, Suriname, Aruba and Cuba (National Export Strategy, 2022) but no formal assessment has been made of the welfare effects (revenue implications and consumer surplus) of these partial scope agreements and/or the welfare benefits of signing a bilateral trade agreement with Caricom.

Transnational education has the capacity to earn even more foreign exchange revenues for Curaçao and it is expected that the government in the context of the National Export Strategy would continue to push the economy in this direction. Tourism is one of the mainstays of the economy given the decline of the oil refining sector and the financial services sector. Tourism activity in recent times has been on the improve and several new hotels including Corendon and Sandals have been added to the portfolio of hotels on the island and a Marriott Courtyard is earmarked to come on stream later this year. The outcry though by many is that the tourism sector tends to produce low-end, value-added jobs.

The Free Zone area in Curaçao surprisingly seems to use more foreign exchange than it generates in some years and policymakers should investigate whether there is scope for some basic manufacturing activity that could at a minimum support the Curaçaoan economy and its Dutch speaking neighbors. Given the growth of the tourism sector, policymakers should consider whether the free zone should be extended with a special area to provide basic agricultural produce specifically for the tourism sector.

In chapter 3, the substantive conversation on the relative position of the Curaçaoan economy in the context of other economies is presented. Of note, the real GDP growth performance of Curaçao in the time period 2000-2009 and 2010-2019 is lower than that of other small states in the Caribbean and the rest of small economies, outside of the Caricom. The comparator states selected for Curaçao include Barbados and Antigua and Barbuda, primarily due to their similar GDP per capita.¹ St. Lucia and Grenada were chosen because they have comparable population sizes,² while Seychelles was included as a comparator based on a combination of comparable GDP per capita and population size. When exposed to a shock the evidence shows that Curaçao takes longer than its peer countries to recover, although the island has a relatively high per capita GDP in relation to other small states including those from the Caricom.

The structure of production is such that the services sector is very big in Curaçao and indeed is one of the largest in the world. International tourism continues to be fairly buoyant in Curaçao and is comparable with that of its comparator states. A Week-at-the-beach index was calculated and shows that Curaçao is a moderately priced destination compared to the Bahamas and other Caribbean countries such as T&T and Barbados.

The manufacturing sector in Curaçao is fairly small. In comparison to small states within Caricom, other small states outside of Caricom and in general its comparators, the manufacturing sector in Curaçao is relatively smaller in size. Curaçao also has a heavy dependence on imported food which is attributed to several factors, including the small size of its agricultural sector.

From an economic vulnerability index perspective, using a rank criterion as developed by (Becker, 2012), the study finds that Curaçao has a level of economic vulnerability similar to its peers.

When considering the labour force participation rate, it is apparent that Curaçao has a significantly lower rate compared to both Caricom, other non-Caricom small states and even its peer comparator economies, highlighting a substantial disparity in terms of workforce engagement on the island.

The fiscal setting shows small states tend to face higher per capita costs of government relative to larger states. Curaçao's government expenditure (% of GDP) and general government gross debt (% of GDP) for 2019 stood at 31.9% and 57.9%, respectively.

In terms of external competitiveness, the real effective exchange rate for Curaçao has not experienced a significant appreciation, unlike many of its comparator states that have shown some degree of real exchange rate appreciation (Venezuela has been left out of the calculation of the real effective exchange rate). With regard to terms of trade volatility, for Curaçao this is not sharp, simply because Curaçao is not a very goods-oriented economy and as a consequence, changes in the merchandise net barter terms of trade does not show up with high variation for the time period 2010-2019. When assessing shipping connectivity, the Liner Shipping Connectivity Index shows that

¹ GDP per capita (current US\$), Avg. 2020-2021.

² Population size (2021).

Curaçao displays low levels of global shipping networks, however this is higher than its comparator states, with the exception of Seychelles.³

Personal remittances are relatively low for Curaçao, averaging per annum 4.96% and 5.27% of GDP for 2011-2019 and 2020-2021, respectively. Given that there is a significant Curaçao diaspora in the Netherlands and the USA, perhaps more can be done to attract higher levels of remittances into Curaçao, parallel to what is observed in its peer comparator states.

With reference to Curaçao's Human Development Index, this indicates that the island's residents enjoy a relatively high standard of living that is comparable to and even slightly better than that of its peers. In addition, based on available data, Curaçao exhibits a lower rate of intentional homicides compared to its peers. Internet connectivity is also fairly good in Curaçao relative to other small states.

In terms of the way forward a series of interventions are outlined to help progress the Curaçaoan economy in the context of its absolute performance since 2000 and its performance in relation to its peer comparators states.

Curaçao's pursuit of WTO membership and the establishment of Preferential Trade and Services Agreements (PSTAs) with countries such as Colombia, Suriname, Aruba, Trinidad and Tobago, Cuba, and the Dominican Republic, highlights the need for a comprehensive assessment of the welfare benefits of these agreements. This assessment would involve analyzing the import structure of potential trade partners in relation to Curaçao's export structure, evaluating sectors with revealed comparative advantage, identifying missed opportunities, rising stars, retreats and declining sectors within these bilateral trade partnerships. In addition, assessing the potential benefits of joining Caricom, Curaçao's trade officials should conduct a partial equilibrium model simulation to evaluate revenue loss, consumer surplus and overall welfare impact. Moreover, policymakers should reconsider the focus on manufacturing in the free zone, as it offers knowledge spillovers, technological advancements and sustainable job opportunities. Furthermore, Curaçao's Residency Investment Program should be modified and enhanced to attract citizens; those with wealth and those with human capital and in so doing create more room to bring in educated individuals with skills needed by Curaçao, thereby fostering the growth and development of the country. Also, Curaçao should continue to focus on transnational education and consider establishing a further two large offshore medical campuses, following the success of St. Georges University in Grenada. Additionally, policymakers should prioritize expanding higher-end hotel rooms to boost tourism revenue, employment and foreign exchange earnings.

³ For the period 2020-2021, the average Shipping Linear Connectivity Index for Curacao was 8.07, while for Barbados, Antigua and Barbuda, St. Lucia, Grenada, Seychelles these values were 7.51, 5.10, 5.61, 5.91, 8.50, respectively.

Inhoud

Executive Summary.....	2
Chapter 1: Basic macroeconomic overview of Curaçao	7
1.1. Introduction.....	7
1.2. Economic Growth.....	7
1.3 Distribution of output	10
1.4 Improving fiscal outcomes.....	11
1.5 Population and the labour market	12
1.6 Conclusion.....	14
Chapter 2: Balance of Payments and Foreign Direct Investment	16
2.1 Introduction.....	16
2.2 Balance of Payments and Foreign Direct Investment.....	16
2.3 Partial Scope Agreements	20
2.4 Transnational Education and Export Revenues.....	22
2.5 Tourism	23
2.6 Free Zones	24
2.7 Conclusion.....	25
Chapter 3: The relative macroeconomic position of Curaçao	26
3.1 Introduction.....	26
3.2 Real GDP Growth	26
3.3 Recovery of Caricom countries and Curaçao when exposed to a ‘shock.’	27
3.4 GDP Volatility in various blocs of economies.....	28
3.5 Relationship between GDP Growth and volatility	29
3.6 Per capita GDP	30
3.7 Inflation.....	33
3.8 Structure of Production	34
3.9 Economic Vulnerability Index.....	45
3.10 Labour Force Participation Rate (LFPR).....	48
3.11 Fiscal setting	49
3.12 External Competitiveness	53
3.13 Human Development Index.....	61
3.14 Intentional Homicides.....	62
3.15 Internet Connectivity	63

Chapter 4: Some suggestions as to how to move forward..... 65
 4.1 The Way Forward..... 66
References 69

Chapter 1: Basic macroeconomic overview of Curaçao

1.1. Introduction

This chapter presents a brief analysis on Curaçao's production structure, aimed at providing insights into the stability of the island's economic growth.

1.2. Economic Growth

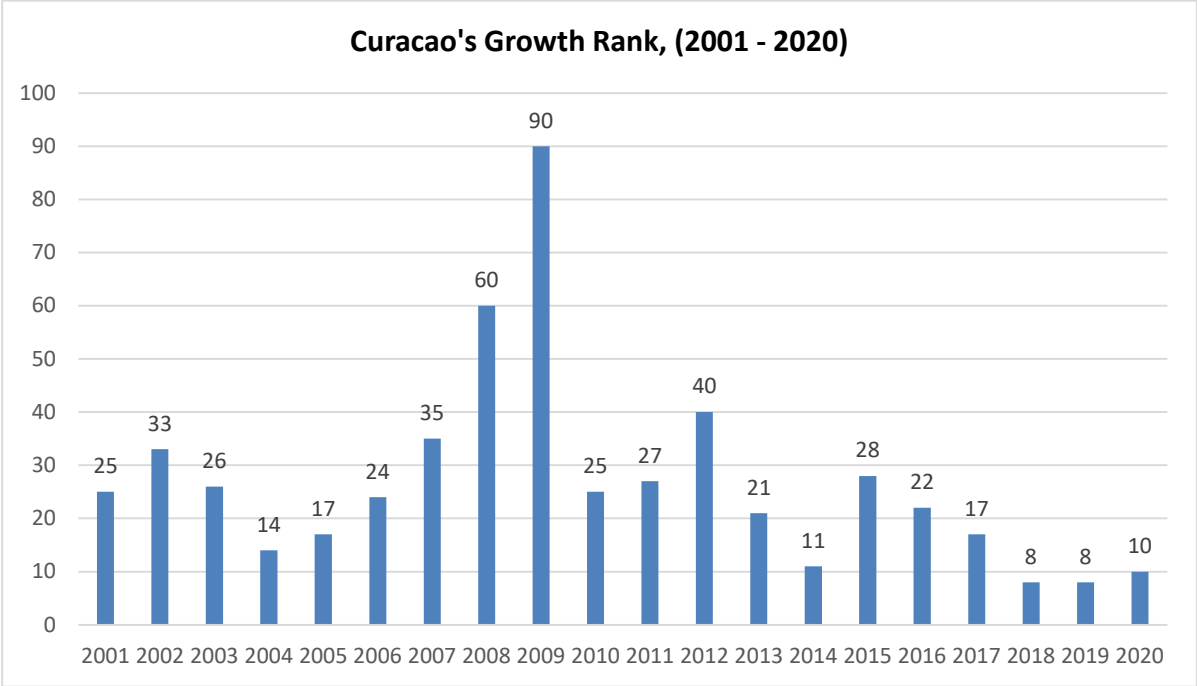
Table 1: Curaçao: Real GDP Growth (% change), Nominal GDP (mns US\$) and Inflation.

Year	real GDP (% change)	Nominal GDP (millions of U.S. dollars)	CPI (12-month average)
2011 Proj.	0.1	3047	2.8
2012	-0.1	3133	3.2
2013	-0.8	3146	1.3
2014	-1.1	3159	1.5
2015	0.3	3153	-0.5
2016	-0.9	3122	0.0
2017	-1.7	3117	1.6
2018 Prel.	-2.2	3020	2.6
2019 Prel.	-3.2	3026	2.6
2020 Prel.	-18.0	2534	2.2
2021 Prel.	4.2	2740	3.8
2022 Prel.	7.9	3075	7.4
2023 Proj.	3.0	3287	3.8
2024 Proj.	3.0	3486	3.0
2025 Proj.	2.0	3634	2.3
2026 Proj.	2.0	3788	2.2
2027 Proj.	1.5	3922	2.0
2028 Proj.	1.5	4060	2.0
Prel. – Preliminary Proj. - Projected Source: IMF, Kingdom of the Netherlands – Curaçao and Sint Maarten 2023 Article IV Consultation Discussions – Press Release; and Staff Report, various years.			

Table 1 above provides an overview of Curaçao's growth data spanning an 18-year period, (2011-2028). As can be seen the overall average annual real GDP growth in Curaçao is -0.14% (2011-2028). During 2011 to 2020 the average annual real GDP rate was -2.76%, with a pronounced contraction in 2020 of 18.0%, mainly on account of the impact of the Covid-19 pandemic. However,

between 2020-2028, real GDP in Curaçao is expected grow by 27.8%. Nominal GDP is expected to grow from US\$2534mn in 2020 to US\$4060mn in 2028, according to the IMF (2023).

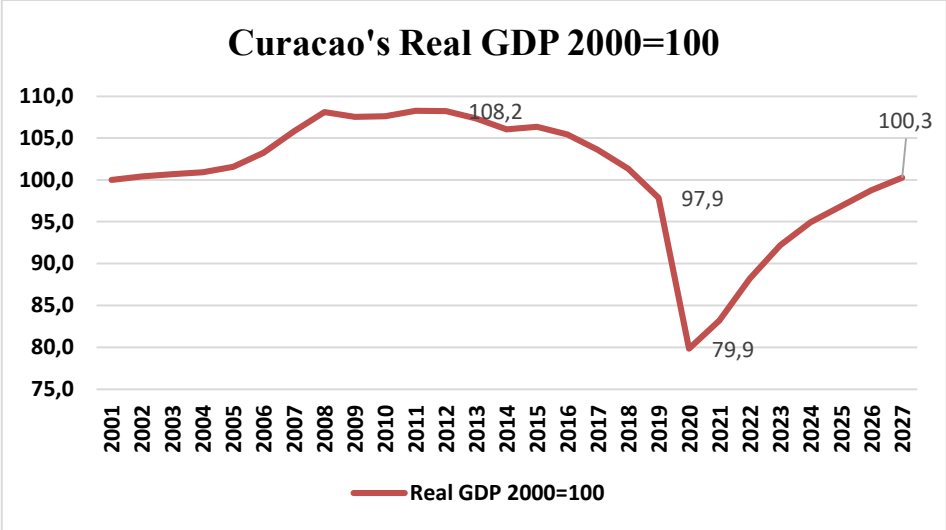
Figure 1 below shows the ranking of Curaçao in terms of economic growth performance in relation to 197 other countries for the time period 2001-2020. In this ranking, 1 represents the worst ranking and 197 the best. As the ranking illustrates, Curaçao has struggled over the indicated time period consistently ranking in the top-40 worst performing economies in the world with the exception of 2008 and 2009.



Source: Own derivation, using IMF Data Mapper (2023).

Figure 1: Curaçao's Growth Rank, out of 197 countries 1 is worst 197 is best.

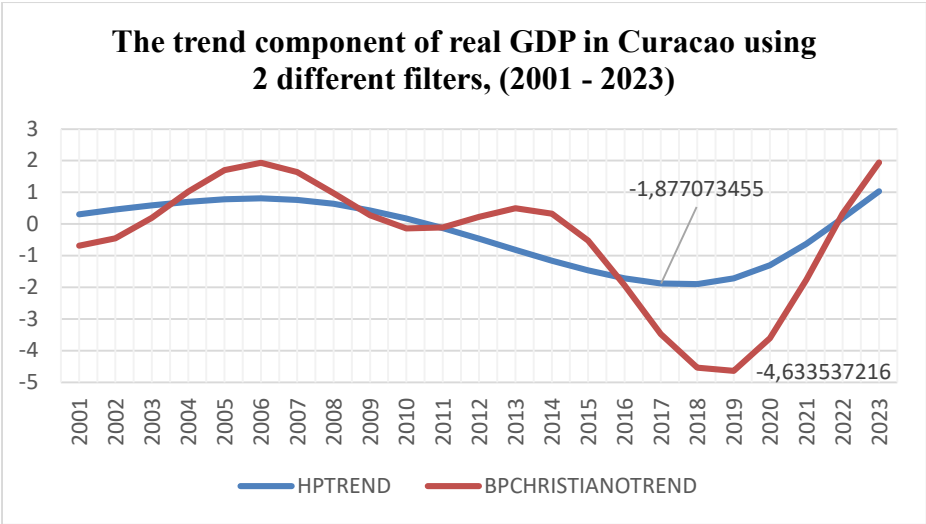
The IMF (2022)⁴, has forecasted that for the period 2023-2027 Curaçao will experience favorable real GDP growth averaging 2.6% per annum (base year of data is 2000). As can be seen from **Figure 2** below, real GDP for the overall time period 2001-2027, peaked in 2012 but thereafter contracted.



Source: (WDI Online Database, 2023), (IMF Data Mapper, 2023) and IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, various years.

Figure 2: Curaçao, Real GDP 2000 = 100.

Further, **Figure 3** below shows the trend in the real GDP of Curaçao for the time period 2001 to 2022. This was obtained by using two filters; a Hodrick Prescott (HP) filter and a Christiano Fitzgerald (CF) filter. (Both filters are considered here, whilst the HP filter outperforms the CF in turning point, the CF does better in terms of the absolute numerical precision) (Nilsson & Gyomai, 2011).



Source: Author generated.
 Figure 3: Curaçao - Trend in Real GDP.

⁴ (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022).

The clear indication is that after 2018, the trend component of the real GDP series (using both filters) is expected to move upward and the IMF forecasted values in part corroborates this expectation for the period 2023-2028.

1.3 Distribution of output

Table 2: Curaçao - Distribution of output, ISIC Rev 4.

Curaçao	% share 2011	% share 2019	% share 2022	% change 2011 to 2022	% change 2019 to 2022
Agriculture, forestry and fishing; Mining	0.3	0.2	0.3	-9.7	16.7
Manufacturing	7.5	5.1	2.5	-64.9	-49.9
Electricity, gas, steam and air conditioning supply; water supply, sewerage, waste management and remediation activities	1.4	4.8	4.9	265.7	2.8
Construction	4.7	3.4	3.8	-15.7	14.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	9.3	6.8	6.2	-29.6	-7.4
Transportation and storage	4.6	4.2	4.2	-3.3	3.5
Accommodation and food service activities	3.6	3.6	6.7	94.1	88.7
Information and communication	4.8	3.9	3.7	-20.4	-5.6
Financial and insurance activities	15.4	18.7	20.6	40.5	11.8
Real estate activities	12.4	11.8	9.5	-20.0	-18.8
Professional, scientific and technical activities;	2.9	2.8	1.9	-30.3	-31.4
Administrative and support service activities	2.4	2.7	2.6	11.7	-2.3
Public administration and defence; compulsory social security	6.8	7.3	6.5	0.3	-9.7
Education	2.8	2.2	2.2	-19.0	-2.1
Human health and social work	5.0	4.6	3.9	-17.6	-14.1
Arts, entertainment and recreation;	1.1	0.8	0.7	-35.8	-9.7
Other service activities; Activities of households as employers, producing activities of households for own use	4.4	4.4	4.8	16.2	11.7
Gross value added	89.4	87.4	84.8	-0.4	-1.4
plus Taxes less subsidies on products	10.6	12.6	15.2	50.2	22.4
Domestic Product Gross, market prices	100.0	100.0	100.0	5.0	1.6

Source: Author generated using Curaçao's (Central Bureau of Statistics, 2023).

As shown in **Table 2** above, in 2011, the financial and insurance activities sector accounted for 15.4% of real GDP. In the same year manufacturing activity stood at 7.5%, real estate activities at 12.4% and wholesale and retail trade; repair of motor vehicles and motorcycles at 9.3% of real GDP. In 2019, the biggest share of GDP remained financial and insurance services at 18.7%, real estate activities 11.8% and wholesale and retail 6.8%. As of 2022 financial and insurance stood at 20.6% and real estate activities at 9.5% remained important contributors to GDP. Other notable sectors in terms of their contribution to GDP were public administration at 6.5% of GDP and wholesale and retail trade, repair of motorcycles and motor vehicles standing at, 6.2%. The collapse of the manufacturing sector from 7.5% of GDP in 2011 to 2.5% in 2022 should not be ignored by policymakers given that this sector is associated with considerable technological spillovers and learning-by-doing.

Between 2011 to 2021, almost every sector as listed in ISIC Revision 4 contracted with the sharpest contractions in the manufacturing, professional scientific and technical activities and arts and entertainment subsectors. However, note that some sectors such as electricity gas steam and air conditioning supply, water supply sewage waste management and remediation activities increased 265.7% whilst there was also an expansion in accommodation and food services activities by 94.1% which augers well for Curaçao.

Undoubtly, the closure of the Isla refinery dealt a big blow to the island and in this regard developing the tourism sector and adding other new engines of growth is critical for Curaçao, given the performance of its real GDP since 2011. Thus, the Corendon resort and the Sandals resort (and the Marriot Courtyard Hotel that is being constructed and which will come onstream later this year) are extremely important additions to the Curaçaoan economy as it tries to navigate its way towards stronger medium-term economic growth.

1.4 Improving fiscal outcomes

As it stands the current fiscal policy rule of Curaçao is focused on obtaining a balance budget (Economic Bulletin, CBCS, June 2023, pg 8). However, this fiscal rule is procyclical and has a short-term focus and obviously falls short when there are sharp exogeneous shocks. Indeed, it has been recommended by the IMF that Curaçao implements a medium-term fiscal framework including the establishment of a target for government debt and an operational rule to help guide desirable levels of fiscal deficits. They suggest the formation of a medium-term fiscal framework which would ensure that debt distress is not very high: in other words, the debt ceiling would be practical and attainable (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions 2022, pg 2). (See **Table 3** for Curaçao's fiscal outcomes for 2018-2027).

Table 3: Curaçao's Fiscal Outcomes, (Millions of Naf).

Fiscal Outcome	2018*	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
	<i>Prel.</i>			<i>Prel.</i>	<i>Prel.</i>	<i>Proj.</i>	<i>Proj.</i>	<i>Proj.</i>	<i>Proj.</i>	<i>Proj.</i>	<i>Proj.</i>
Overall balance	-134	-107	-711	-512	-16	-522	32	30	20	18	33
Primary balance	-74	-42	-651	-452	42	-464	137	135	127	125	140
<i>Prel.</i> – Preliminary											
<i>Proj.</i> - Projection											
Source: IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022* and 2023.											

Dare (2017) examined the effectiveness of the rule-based fiscal framework in promoting fiscal discipline and economic growth in Curaçao. Investigating the rule-based fiscal framework of the monetary union of Curaçao and Sint Maarten for the period 2002-2016 Dare sought to determine whether it contributed to fiscal discipline and economic growth in Curaçao. The findings of Dare revealed that fiscal rules have had a significant positive impact on the current budget balance of the Curaçao government, contributing towards fiscal discipline. However, it was also found that fiscal rules had a negative effect on Curaçao's real GDP growth. This suggests that while fiscal discipline is important, it is not sufficient on its own to drive economic growth. In addition, Dare argued that improvements in other macroeconomic factors are necessary to foster economic growth in conjunction with fiscal discipline. Other factors identified by Dare included; a) improving competitiveness b) improving the investment climate and c) mobilizing the labour market.

Related to the above, the IMF (2022)⁵ proposed a debt-to-GDP ratio of “about 55%.” However, this may be a bit too ambitious as according to the same IMF 2022 report, Curaçao posted a debt-to-GDP ratio of 89.2% in 2021 and 83.3% was projected for 2022.

1.5 Population and the labour market

Between 2018 and 2021, Curaçao was ranked 7th among all countries in terms of the percentage decline of its population (see **Table 4**). Policymakers would need to put in place measures to reverse this trend in population growth rates for Curaçao.

Table 4: Rank of countries in terms of decline in population.

Rank	Countries	Population, millions, 2021	% change in pop 2018 to 2021
1	Marshall Islands	0.04	-8.57
2	American Samoa	0.05	-7.00
3	Lebanon	5.59	-6.02
4	St. Martin (French part)	0.03	-5.62
5	Venezuela, RB	28.20	-5.45
6	Croatia	3.90	-4.62
7	Curaçao	0.15	-4.37
8	Bosnia and Herzegovina	3.27	-3.80
9	Moldova	2.62	-3.40
10	Singapore	5.45	-3.28
11	Qatar	2.69	-2.84
12	Latvia	1.88	-2.21

Source: Computed using WDI Online Database (2023).

The composition of the Curaçaoan society is largely shaped by migration throughout its history. Bruijn and Groot (2014) indicate that around forty per cent of Curaçao's present population can be traced to migrants who arrived on the island within the last hundred years. This highlights the significant influence of migration on the island's demographic makeup (Central Bureau of Statistics 2023) (see **Table 5**).

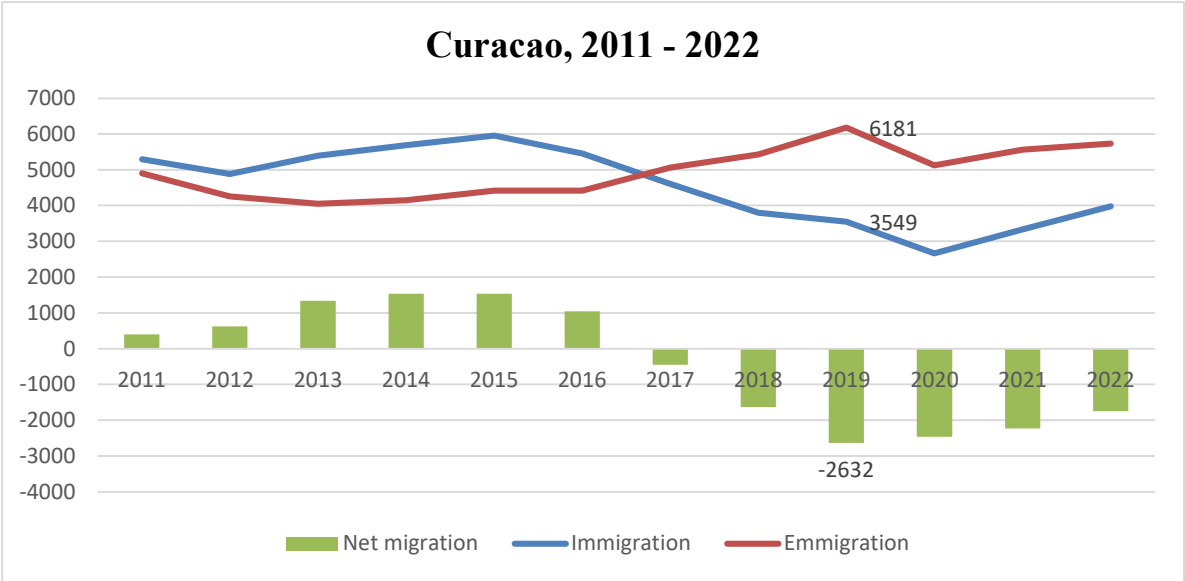
Table 5: Migration data for Curaçao.

Immigrant population	Migrant population as a % of total population	Women as a % of immigrant population	Emigrant population in 2019	Remittances received in US\$mn	Remittances received % of GDP	Net migration rate
57210	34.9	56.4	6131	176,186,257	5.7	-1.32

Source: Curaçao Needs Assessment on Migration Governance, (IOM, 2021).

⁵ (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022).

Figure 4 below illustrates the net migration trend in Curaçao over the past 12 years. The clear indication is that from 2017 to 2022, net migration has been negative, indicating a higher number of persons leaving the country relative to those entering. In 2019, some 6131 persons left Curaçao with only 3549 persons flowing into the island, so that overall, there was a decline of 2,582 people in the population. This outflow of people has the potential to negatively impact the island's recovery and development. Indeed, whilst some skilled labour likely emigrated to the Netherlands or to other Dutch Caribbean countries it is difficult for replacement labour to enter Curaçao. In this regard, lowering barriers to allow foreign skilled workers to work in Curaçao could help deal with problems associated with the skill gap and the mismatch of skills, that currently exist in Curaçao.



Source: Curaçao's Central Bureau of Statistics (2023).

Figure 4: Curaçao's Net Migration, 2011 – 2022.

In terms of the unemployment rate in Curaçao, this has persistently been in double digits (see **Table 6** below).

Table 6: Labor market developments in Curaçao.

Labour Force of Curaçao	Sept. – Okt.	Sept. – Okt.	Sept. – Okt.	Sept. – Okt.	Sept. – Okt.	Okt 2022-feb
	2016	2017	2018	2019	2020	2023
Total (non institutional) population	156721	156597	156230	153545	150789	148934
* Population 0-14 years	29382	28539	29950	28665	25735	24238
* Population 15+ years	127339	128058	126280	124880	125054	124696
* Employed population	65118	62834	60729	61547	57050	66722
* Unemployed population	9953	10313	9424	12992	13442	10035
* Economically not active population	52268	54911	54113	49715	54562	47479
Labour Force (Employed and unemployed population)	75071	73147	70153	74539	70492	76757
<u>in % of the total population</u>						
Labour Force (Employed and unemployed population)	47.9	46.7	44.9	48.5	46.7	51.5
Employed labour Force	41.6	40.1	38.9	40.1	37.8	44.8
<u>in % of the population 15+</u>						
gross participation rate (labour force)	59.0	57.1	55.6	59.7	56.4	61.6
net participation rate (employed labour force)	51.1	49.1	48.1	49.3	45.6	53.5
Unemployment rate (%)	13.3	14.1	13.4	17.4	19.1	13.1
Youth unemployment rate (%)	36.8	32.8	29.3	41.7	42.2	29.8

Source: CBS (2023), Labour Force Survey.

1.6 Conclusion

The Curaçaoan economy has been struggling to realize economic growth. Although post Covid-19 growth has returned to the island with a projected growth rate of 3.0% in 2023, according to the recently released IMF Country Report No. 23/285. Between 2020-2028, real GDP in Curaçao is expected grow by 27.8%.

The unemployment rate on the island continues to be elevated reflecting both a shortage of capital as well as skills mismatch. The island's employment rate and fiscal balance in 2023 improved as compared to 2022. Curaçao was ranked 7th in the world for the period 2018-2021 in terms of countries with the greatest level of population decline.

Indeed, as stated by (Rosaria, 2023) over the past six years, Curaçao has experienced a 7 percent decline in its population, translating to approximately 11,087 fewer residents compared to 2017. This population decline is closely linked to migration patterns, which, in turn, are intertwined with the island's economic circumstances. In addition, the island has seen a 20 percent increase in emigration from Curaçao since 2011. Concurrently, immigration into the country during the same period has dropped by 30 percent, leading to a net-negative migration balance. The closure of the island's oil refinery in 2018 and the downturn in tourism due to the pandemic have both contributed to the economic challenges faced by Curaçao. Adding to these trials, the island is grappling with a notable brain drain, as many of its most promising students opt to pursue higher education in the Netherlands or the United States.

Noteworthy, Curaçao's youth unemployment stood at 29.8% in 2022 as compared to 41.7% in 2019. The labour force participation rate continues to be a source of concern.

In 2022, employment in Curaçao climbed to 66,722 persons from 61,547 in 2019. One concern though as would be discussed in the next section is that many of the new jobs are in lower-end tourism and construction sectors and policymakers would need to keep this in mind; as such lower-end jobs do not help to significantly raise the standard of living of benefitting workers.

Overall, the situation in Curaçao reflects a mixed economic landscape with signs of growth but also ongoing challenges in unemployment, labour force participation and the quality of job opportunities.

Chapter 2: Balance of Payments and Foreign Direct Investment

2.1 Introduction

Maintaining a favorable Balance of Payments (BOP) is crucial for countries as it signifies a healthy and sustainable economic position, ensuring stability in currency flows and facilitating favorable trade and investment dynamics. In addition, attracting sufficient Foreign Direct Investment (FDI) is crucial for Curaçao as this brings with it capital, technology and expertise, fostering economic growth, creating employment opportunities and facilitating knowledge transfer. FDI also enhances productivity, promotes innovation and contributes to the overall development of Curaçao's economy.

2.2 Balance of Payments and Foreign Direct Investment

It is understood clearly by Curaçao's policymakers that trade is the economy's umbilical cord for growth and foreign exchange.

The data in **Table 7** below, indicates that Curaçao has been running an overall average current account deficit for the period 2011 to 2018 and 2019 to 2022. Further, the current account, drawing on available IMF data, is projected to remain in deficit for the period 2023 to 2028. This result is not surprising as Curaçao is highly dependent on the exports of services which have dominated its current account for the period 2014 to 2022 and is expected to continue to do so in the medium-term. Furthermore, given the small size of Curaçao it has a relatively small manufacturing base and its goods imports is thus relatively high. In this regard, it makes good economic sense that the government of Curaçao has focused heavily on services exports in the National Export Strategy (NES). However, policymakers should seek to use a proportion of the space at the free zone/industrial zone for some manufacturing activity rather than economic activity centered around redistribution.

Table 7: Curaçao: Balance of Payments (Millions of U.S. dollars), 2014-27.

Year	Average 2011-2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Average 2023-2028
					Prel	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	
Current account	-656	-541	-689	-507	-877	-806	-834	-786	-744	-698	-692	-760
Good and services	-603	-556	-694	-546	-855	-762	-769	-742	-723	-695	-689	-730
Exports of goods and services	2207	1,775	1,014	1,373	2,049	2,242	2,402	2,563	2,706	2,845	2,992	2625
Goods	656	398	271	344	553	544	576	619	662	710	762	646
Services	1551	1,377	743	1,029	1,496	1,698	1,826	1,944	2,043	2,135	2,230	1979

Imports of goods and services	2810	2,331	1,709	1,919	2,904	3,004	3,170	3,305	3,429	3,539	3,681	3355
Goods	1880	1,461	1,209	1,483	2,023	2,059	2,152	2,232	2,308	2,377	2,459	2265
Services	931	870	500	436	881	945	1,018	1,073	1,120	1,162	1,222	1090
Income	-16	43	56	57	10	-9	-29	-5	19	38	39	9
of which: investment income	-52	-45	5	9	-46	-69	-92	-71	-49	-32	-33	-58
Current transfers	-37	-28	-51	-17	-33	-35	-37	-38	-40	-42	-43	-39

Source: IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, various years.

FDI into Curaçao has increased over time and is expected to remain relatively strong in the medium-term period, according to the WDI online database (see **Table 8**). This is a positive, as the economy needs more capital injections given the high level of unemployment.

Table 8: FDI, net inflows (BoP, current US\$bn) to Curaçao.

FDI net inflows	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
US\$ bn	0.07	0.07	0.00	0.07	0.15	0.13	0.17	0.13	0.20	0.16	0.15

Source: using WDI Online Database (2023).

Description of Data: "Foreign direct investment refers to direct investment equity flows in the reporting economy. It is the sum of equity capital, reinvestment of earnings, and other capital. Direct investment is a category of cross-border investment associated with a resident in one economy having control or a significant degree of influence on the management of an enterprise that is resident in another economy. Ownership of 10 percent or more of the ordinary shares of voting stock is the criterion for determining the existence of a direct investment relationship. Data are in current U.S. dollars."

Table 9 below presents Curaçao's top 10 exports of merchandise goods to the world for 2015 and 2021. It is clear that bunkering and related activities continue to be important to Curaçao. Fishing and aspects of that supply chain, also help to generate some much needed foreign exchange for Curaçao.

Table 9: Curaçao's top 10 merchandise goods exports in 2015 and 2021.

2015			2021		
Commodity	Export Value (US\$mn)	% of Total Exports	Commodity	Export Value (US\$mn)	% of Total Exports
Oils petroleum, bituminous, distillates, except crude	817.04	50.9%	Oils petroleum, bituminous, distillates, except crude	149.56	45.9%
Gold in unwrought forms non-monetary	537.10	33.5%	Petroleum oils, oils from bituminous minerals, crude	31.49	9.7%
Petroleum oils, oils from bituminous minerals, crude	147.02	9.2%	Petroleum bitumen	27.21	8.3%

Skipjack,stripe-bellied bonito, frozen, whole	15.44	1.0%	Tunas(yellowfin) frozen, whole	10.64	3.3%
Tunas(yellowfin) frozen, whole	10.41	0.6%	Fishing vessels and factory ships	9.36	2.9%
Whiskies	7.63	0.5%	Medicaments nes, in dosage	5.78	1.8%
Diamonds (jewellery) worked but not mounted or set	6.24	0.4%	Skipjack,stripe-bellied bonito, frozen, whole	5.57	1.7%
Sulphur, crude or unrefined	5.87	0.4%	Ferrous waste or scrap, nes	5.25	1.6%
Polyurethanes	5.24	0.3%	Orthopaedic/fracture appliances, nes	3.46	1.1%
Jewellery and parts of precious metal except silver	5.09	0.3%	Tugs and pusher craft	3.24	1.0%
Source: (BACI, 2023).					

Table 10 presents Curaçao's top 10 goods imports for 2015 and 2021 which like its goods exports is dominated by energy-based commodities. As regards Curaçao's non-energy-imports, these are not surprisingly comprised of manufactured goods, machinery and food. Additionally, like Curaçao's goods exports, imports of goods in 2021 have fallen significantly when compared to levels in 2015.

Table 10: Curaçao's top 10 merchandise goods imports in 2015 and 2021.

2015			2021		
Commodity	Import Value (US\$mn)	% of Total Imports	Commodity	Import Value (US\$mn)	% of Total Imports
Oils petroleum, bituminous, distillates, except crude	754.07	33.91%	Oils petroleum, bituminous, distillates, except crude	181.03	17.26%
Petroleum oils, oils from bituminous minerals, crude	268.86	36.47%	Monolithic integrated circuits, digital	49.28	4.70%
Medicaments nes, in dosage	53.02	4.18%	Medicaments nes, in dosage	26.96	2.57%
Whiskies	38.95	2.92%	Food preparations nes	22.47	2.14%
Medium Sized Cars	30.97	1.18%	Medium Sized Cars	18.35	1.75%
Fishing vessels and factory ships	29.07	0.84%	Beer made from malt	16.78	1.60%
Small Sized Cars	20.48	0.34%	Fowl cuts & offal, domestic, except livers, frozen	16.01	1.53%
Coal tar distillation products nes	17.02	0.28%	Jewellery and parts of precious metal except silver	15.12	1.44%
Heterocyclic compds with an unfused triazine ring nes	16.75	0.24%	Transmit-receive apparatus for radio, TV, etc.	13.62	1.30%
Fowl cuts & offal, domestic, except livers, frozen	16.28	0.23%	Small Sized Cars	11.35	1.08%
Source: (BACI, 2023).					

Table 11 highlights the top 10 export destinations for merchandise goods from Curaçao in 2015 and 2021. It is evident that the export value of Curaçao to its various trading partners countries has fallen significantly in 2021. Note, only a few major export partner countries from 2015 remained in the top 10 in 2021.

Table 11: Top 10 export destinations, 2010 and 2021.

Position	2015		2021	
	Country	Trade Value	Country	Trade Value
1	Switzerland	370.58	Costa Rica	44.39
2	Nicaragua	355.97	Netherlands	43.25
3	United States	319.98	Guatemala	37.74
4	Brazil	116.78	United States	37.22
5	Belize	89.16	Nicaragua	23.33
6	Suriname	72.36	Brazil	18.95
7	El Salvador	71.01	Spain	17.43
8	Singapore	38.59	Aruba	16.91
9	Dominican Republic	35.69	India	9.65
10	Spain	20.84	Norway	9.42

Source: (BACI, 2023).

The top 10 countries from which Curaçao imports its goods have also changed but with the United States and the Netherlands, though, remaining the two main import partners (as shown in **Table 12**).

Table 12: Top 10 destinations that Curaçao imports from for 2015 and 2021.

Position	2015		2021	
	Country	Trade Value	Country	Trade Value
1	Brazil	532.66	United States	334.65
2	United States	484.64	Netherlands	245.01
3	Netherlands	225.66	Canada	63.48
4	Argentina	109.13	China	54.85
5	China	91.28	Philippines	53.51
6	Peru	87.22	Brazil	35.30
7	Angola	82.61	India	27.49
8	Panama	52.48	Colombia	26.32
9	Nigeria	49.17	Germany	21.07
10	Singapore	40.44	Japan	16.06

Source: (BACI, 2023).

2.3 Partial Scope Agreements

Curaçao is not currently a part of any trade agreements; however, the government of Curaçao has applied to Caricom for membership. Further Curaçao is in the process of negotiating several partial scope trade agreements (PSTAs). These PSTAs are in varying stages of development due to differences in signing the initial framework to begin negotiations. Specifically, the framework for the Dominican Republic-Curaçao PSTA was signed in 2018 while the framework for the Trinidad and Tobago-Curaçao PSTA was signed in 2022. Agreements are also being discussed with Suriname, Aruba and Cuba (National Export Strategy, 2022) and negotiations with Colombia are at an advanced stage. As a result, negotiations between Colombia and Curaçao have commenced while negotiations between Trinidad and Tobago and Curaçao have yet to commence.

This section takes a closer look at a possible Trinidad and Tobago and Curaçao, PSTA. By way of context, Curaçao's exports to Trinidad and Tobago in 2021 (shown in **Table 13**), only accounted for 1.35% of Curaçao's total exports. However, it should be noted that Trinidad and Tobago's importance for Curaçao has been gradually growing since 2011 when exports to Trinidad and Tobago accounted for a mere 0.08% of Curaçao's total exports. This growth peaked in 2019 prior to the Covid-19 pandemic when exports to Trinidad and Tobago accounted for 1.52% of total exports of goods by Curaçao.

Table 13: Proportion of exports to Trinidad and Tobago.

Year	CUW-WORLD exports (USD mn)	CUW-TTO exports (USD mn)	% of total Exports
2011	3753.03	3.03	0.08
2012	4281.92	0.77	0.02
2013	4046.78	1.16	0.03
2014	2718.08	2.47	0.09
2015	1663.45	1.73	0.10

2016	1656.18	1.65	0.10
2017	1297.98	1.81	0.14
2018	667.32	0.82	0.12
2019	416.41	6.35	1.52
2020	163.03	1.20	0.74
2021	326.19	4.41	1.35
Source: BACI (2023).			

It is very important, from a “natural trading partner perspective” to examine the degree of trade complementarity between Curaçao and Trinidad and Tobago (forming a preferential trade agreement with a larger country that imports what Curaçao (home country) is exporting will likely lead to a higher level of welfare for Curaçao, according to the natural trading partner hypothesis). The trade complementarity index between Trinidad and Tobago and Curaçao is presented in **Table 14** and indicates that there is trade complementarity between both countries, implying in part that Curaçao exports, what Trinidad and Tobago imports.

Table 14: Trade Complementarity between Curaçao and Trinidad and Tobago.

	2015	2021
Trinidad and Tobago	1.22	1.12
Source: Author Computed.		

It is here recommended that Curaçao take a close look at the welfare implications of its different proposed trade agreements and undertake a thorough assessment of the trade complementarity with each of its proposed partial scope partners. This is critical as the Curaçao economy is highly dependent on trade for its economic sustenance and rigorous trade-based analysis can help to guide the Curaçao economy as to which PSTA is likely to be more successful.

Table 15: Curaçao's Trade Intensity with Trinidad and Tobago and Dominican Republic.

Country	Trade Intensity (2022)
Trinidad and Tobago	28.85
Dominican Republic	39.12
Source: Author computed.	

The results in **Table 15** for both partner countries are above one (1) which is the threshold for high trade intensity. The results indicate that Curaçao has formed significant trade relationships with both Dominican Republic and Trinidad and Tobago.

2.4 Transnational Education and Export Revenues

Table 16 below identifies the various offshore Universities in Curaçao.

Under review of Zulaika/Sinai

Table 16: Universities in Curaçao.

University	Date of Establishment
Global Humanistic University	2018*
UNICAL, Integral University of the Caribbean and Latin America	2015
Caribbean Medical University	2007
Bircham International University	1992
Almirante Luis Brion University	2016
John F. Kennedy University School of Medicine	2014
Avalon University School of Medicine	2003
Caribbean International University (CIU)	-
St. Martinus University Faculty of Medicine	2000
International Long Life Learning University (ILLU)	-
* This is the date in which this university received their charter.	
Source: Author compiled.	

In addition, **Table 17** below tells a very interesting story. It shows the average monthly spending per student on Transnational Education (TNE) in Curaçao. Average monthly expenditure by a student stands at US\$2250 which translates to an average yearly expenditure of US\$27,000 per student. When an estimated two visitors per student are included, this increases to US\$29,000. The (Curaçao Economic Outlook, 2023) notes that a faculty member spends about US\$44,000. It is assumed there are 8 faculty members per 100 students.

Table 17: Economic spinoff TNE.

	USD	Naf.		
Per Student				
Average monthly spending per student	2250	4005		
Average yearly spending per student	27000	48060		
Average yearly spending per student, incl. visitors	29000	51620		
Faculty member spends 1.5 times per student	43500	77430		
TNE landscape (MEO)				
Number of Students	100		2073	
Number of faculty members	8		166	
	Estimates		Estimates	
	USD	Naf.	USD	Naf.
Total spending per year per student incl. visitors	2900000	5162000	60117000	107008260
Total spending per year faculty members	348000	619440	7214040	12840991
Grand total	3248000	5781440	67331040	119849251
Source: Curaçao Economic Outlook (2023).				

The NES has identified educational services as a priority sector to fetch foreign exchange and in this regard TNE is an excellent sub-sector and offers great promise.

2.5 Tourism

Table 18: Growth of the Tourism in Curaçao.

Year	International tourism, number of arrivals	International tourism, expenditures (current US\$)	International tourism, receipts (% of total exports)
1995	396000	..	..
1996	387000	..	..
1997	422000	..	..
1998	437000	..	..
1999	433000	..	..
2000	514000	..	..
2001	519000	..	..
2002	545000	137000000.00	..
2003	508000	176000000.00	..
2004	452000	195000000.00	..
2005	510000	164000000.00	..
2006	572000	191000000.00	..
2007	664000	223000000.00	..
2008	773000	229000000.00	..
2009	808000	258000000.00	..
2010	762000	282000000.00	..
2011	837000	321000000.00	25.7
2012	908000	357000000.00	28.8
2013	1071000	377000000.00	36.0
2014	1129000	383000000.00	36.0
2015	1072000	419000000.00	36.2
2016	944000	428000000.00	36.1
2017	1058000	447000000.00	32.4
2018	1210000	452000000.00	31.2
2019	1293000	411000000.00	39.8
2020	..	127000000.00	27.8

Source: (WDI Online Database, 2023).

The data shown in **Table 18** indicates that prior to the Covid-19 pandemic tourism in Curaçao was expanding as the number of international tourist arrivals to the island grew by 60.25% between 2000 and 2019 or from US\$137mn to US\$411mn. Consequently, tourism expenditure in Curaçao also increased between 2000 and 2019. This growth of the tourism sector resulted in the expansion of the

sector's overall contribution to Curaçao's total exports from 25.7% in 2011 to 39.8% in 2019, prior to Covid-19. This is an area that authorities can target for much needed foreign exchange in Curaçao.

Table 19: Visitors to Curaçao, top-markets 2022.

Market	Market Share(percent)
The Netherlands	51
United States of America	18
Colombia	6
Germany	3
Aruba	2
Brazil	2
Belgium	2

Source: Data derived from (Curacao Tourist Board, 2023).

The Curaçao Tourist Board has stated that for 2023, Curaçao is on track to receive a record number of tourists. What is particularly interesting is that a significant number of the tourists visiting Curaçao come from the Netherlands (51%) and 18% come from the United States with 2% coming from Aruba, as highlighted in **Table 19**. It is the opinion of this study that that a greater thrust must be made towards attracting more tourists from Aruba, Belgium, Brazil, Colombia and Germany (as well as other countries) given the high shares of the Netherlands and the USA. This way some of the potential vulnerability that can emerge on account of a greater dependence on the Netherlands and the USA, can be managed.

2.6 Free Zones

The National Export Strategy emphasizes that it intends to utilize free zones to further improve Curaçao's GDP. The government of Curaçao aims to leverage these free zones to facilitate the production of various export commodities. As at 2023, the free zone consists of three parks: the Airport Free economic zone, Harbor free economic zone and the Industriaepark Brievengat. Since the parks establishment they have made an increasing contribution to the island's GDP. In addition, in June 2023, the parks employed 1239 people in some 145 companies.

In planning the utilization of its free zones and its NES, the government of Curaçao should closely examine its export potential as stated by the International Trade Centre (ITC). **Table 20** below presents the export potential of Curaçao for its top 10 export commodities and markets to which Curaçao can further increase its exports. In total ITC has indicated that in 2023 Curaçao has an untapped or unrealized export potential of US\$107mn of goods that can be exported to its various trading partners.

Table 20: Curaçao's Export Potential with its top 10 markets and commodities.

Position	Country	Export Potential (US\$mn)	Actual Exports (US\$mn)	Untapped Potential (US\$mn)	Commodity	Export Potential (US\$mn)	Actual Exports (US\$mn)	Untapped Potential (US\$mn)
1	Switzerland	84	57	32	gold, unwrought, for non-monetary purposes	118	77	41
2	United states of America	38	24	16	Tuna (yellow fin), Frozen	35	14	21
3	Spain	37	24	18	Skipjack & bonito, frozen	8.9	8.7	2.9
4	United Arab Emirates	7.3	6	1.7	Jewelry, of precious metal, n.e.s.	7.2	7.7	4.3
5	Netherlands	7.1	4.7	4.9	Medicaments consisting of mixed or unmixed products for retails sale	6.7	3.1	5.5
6	Taipei, Chinese	4.2	2.6	3.4	Orthopedic/ facture appliances	4.4	1.9	2.9
7	Cote d'Ivoire	4	2.7	1.3	tugs& pusher craft	4.1	3.2	2.6
8	Italy	3	1.8	1.7	water as Beverage	2.5	0.448	2.5
9	Panama	3	1.6	2.4	Insecticides, rodenticides, fungicides, herbicides & similar	2.4	1	2.2
10	India	2.9	1.4	2.6	Plugs & sockets, <=1.000v, n.e.s	2.3	2.5	1.2

Source: (ITC, 2023).

2.7 Conclusion

Recognizing trade as the economy's growth and foreign exchange lifeline, Curaçao's policymakers ought to consider policies aimed at attracting more capital injections, including FDI, in order to widen productive capacity and provide more decent sustainable jobs to help address the situation in the labour market. The island also should prioritize trade agreements, such as joining Caricom and pursuing PSTAs, but with a sound understanding of the welfare outcomes associated with the various potential partners. Further, TNE presents an opportunity for foreign exchange generation, with average monthly spending per student amounting to US\$2,250, offering promise for the educational services sector. The expansion of tourism is a potential source for further foreign exchange earnings, with international tourist arrivals growing by 60.25% between 2000 and 2019. Diversifying tourism source economies beyond the Netherlands and the USA can help to mitigate vulnerability for Curaçao's tourism sector. Moreover, better utilization of the free zones and a focus on the island's untapped export potential can also contribute to Curaçao's GDP growth.

Chapter 3: The relative macroeconomic position of Curaçao

3.1 Introduction

In this chapter, the discussion is broken down into several layers including a basic look at the macroeconomic comparative performance, an assessment of the labour market, an assessment of external competitiveness and trade performance and an overall assessment of economic vulnerability. Overall, this chapter will look at a comparative assessment of small states across the world, including a specific comparison of Curaçao with other small states. In this chapter Caricom (Caribbean Community) small states, will be classified against non-Caricom small states. Caricom birthed in 1973 is a regional grouping of countries consisting of twenty countries, including fifteen Member States and five Associate Members. With a population of approximately sixteen million people, Caricom represents diverse ethnic groups such as Indigenous Peoples, Africans, Indians, Europeans, Chinese, Portuguese, and Javanese. The community is characterized by its multilingualism, primarily using English as the major language, alongside French, Dutch, as well as various African and Asian languages (Caricom, 2023).

3.2 Real GDP Growth

Table 21: Real GDP growth (annual percent change), average annual.

Countries by Population Size	1980-1989	1990-1999	2000-2009	2010-2019	2020-2028	2020-2022	2023-2028
less than 500,000	4.52	2.55	2.38	2.09	1.74	-0.31	2.78
500,000 to 1mn	3.96	4.30	3.98	3.96	5.45	4.91	5.72
1mn to 2mn	3.57	6.70	6.56	2.57	1.95	0.81	2.52
2mn to 5mn	3.29	3.31	4.02	3.38	2.76	1.77	3.25
5mn to 100mn	2.48	2.77	4.47	3.35	2.48	1.39	3.46
more than 100mn	4.33	3.16	5.12	4.51	3.38	2.62	3.76
Caricom small states < 5mn	3.35	3.18	2.86	1.53	3.64	2.38	4.27
Caricom small states less Guyana <5mn	3.88	3.05	2.95	1.34	1.59	-0.91	2.84
non Caricom small states <5mn	4.15	3.83	4.05	3.18	2.43	1.09	3.11
all small states <5mn	3.93	3.69	3.83	2.88	2.65	1.33	3.32
all small states less Guyana <5mn	4.08	3.68	3.86	2.87	2.29	0.75	3.06
Curaçao and its Comparators:							
Curaçao*	0.63	1.45	0.46**	-0.86	0.79	-1.97	2.17
Barbados	1.76	0.46	1.40	-0.06	1.60	-1.17	2.98
Antigua and Barbuda	6.37	3.45	3.11	2.10	1.62	-2.83	3.85
St. Lucia	7.26	3.34	1.93	1.32	1.62	0.90	1.98
Grenada	5.71	3.49	2.51	2.84	1.90	-1.03	3.37
Seychelles	2.70	4.95	2.00	4.87	3.52	3.00	3.78

Source: Author's Calculations using IMF Data Mapper (2023) and WDI Online Database (2023).

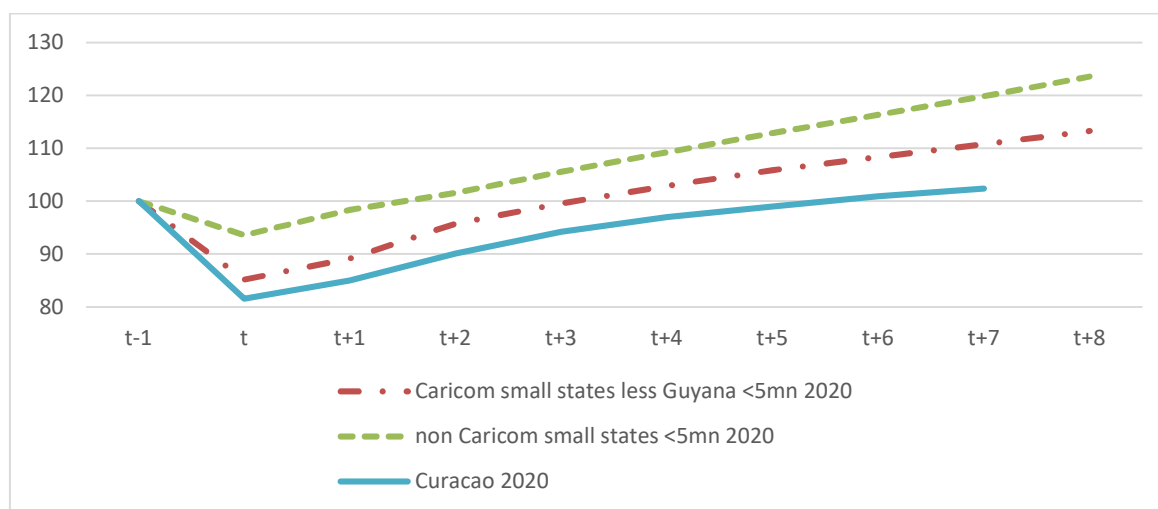
*WDI Online Database (2023) and Curaçao and Sint Maarten, IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, various years.

**Avg. 2001-2009

Table 21 above shows the real GDP growth performance on an average annual basis for various time periods. Observe that Caricom small states with population less than 5mn with and without Guyana had a lower growth performance than non-Caricom small states for all of the indicated time periods until 2020-2022.⁶ Even more, for the period 2023 to 2028, Caricom small states as a group with population less than 5mn (excluding Guyana) is also expected to grow at 2.84% per annum as compared to non-Caricom small states which are expected to grow at 3.11%.

As concerns Curaçao specifically, in the time period 2000 to 2009 Curaçao's real GDP growth per annum averaged 0.46% but in the following time period, 2010-2019, average annual GDP growth stood at -0.86%. For the period 2020-2022 data obtained from the IMF Article IV (2023) on Curaçao,⁷ reflects a further average annual contraction in the Curaçao economy of -1.97%. Importantly though, in the medium-term period 2023-2028, real average annual economic growth is expected to climb to 2.17%, a welcome change, if it unfolds.

3.3 Recovery of Caricom countries and Curaçao when exposed to a 'shock.'



Source: Author's computations using, IMF Data Mapper (2023) and IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, various years.

Figure 5: GDP response in small CARICOM and non-CARICOM states and Curaçao, t-1 to t+8.

⁶To maintain consistency in the average calculations, Guyana is treated as an outlier due to its upcoming oil boom and the projected growth in its energy sector. With a significant increase in real GDP (annual % change) of 57.8% (2022) and 25.2% (2023), along with a forecasted nominal GDP of G\$5,925.9 billion in 2027 (IMF Article IV, September 2022), Guyana's exceptional economic performance sets it apart from other countries considered in the analysis. In addition, the country is positioned to become the world's fourth-largest offshore oil producer, placing it ahead of Qatar, the United States, Mexico and Norway (AP News, 2023).

⁷ IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions (2023).

The data in **Figure 5** above shows the response of Caricom economies as a group (less Guyana) and non-Caricom small states and how they respond to shocks, using the Covid-19 shock as the example, in this case. Specifically, to understand the response of the different economies to the Covid-19 shock, let the year 2020 be represented by t. The year t-1 is thus 2019 and is treated as the base year. The data shows that Caricom small states (without Guyana) will not recover to its 2019 level of real GDP until t+4. Non-Caricom small states will recover to their 2019 level of economic activity by t+2. However, Curaçao will take until t+6 i.e., the Curaçaoan economy will take longer than even its Caricom neighbors to recalibrate.

In 2020, whilst the Curaçao economy contracted 18.0%, Caricom economies, on average contracted by 12.48%.⁸ It is possible that given the extent of trade openness and dependence on foreign economies for strategic imports, that the magnitude of the shock on Curaçao, was deeper than other Caribbean economies.

3.4 GDP Volatility in various blocs of economies

The data in the **Table 22** below highlights a notable characteristic; the GDP volatility (the standard deviation of average real GDP growth (annual percent change) for 188 countries, over the period 2010-2023 was used as a proxy for the calculation of GDP volatility) of Caricom countries is significantly higher compared to that of other countries. This can be attributed to several factors. Firstly, output of Caricom countries tend to be heavily concentrated and as a result economies do not have a broad base on which to land, when they are exposed to exogenous shocks. Many Caricom economies are primarily driven by the export of services and service-based economies generally have fewer backward and forward linkages with the rest of the economy compared to commodity-based economies. Therefore, when the services sector is adversely shocked, it takes time for the economy to recalibrate.

Table 21: GDP Volatility, 2010--2023.

Countries by Population Size	GDP Volatility*
less than 500,000	4.98
500,000 to 1mn	7.12
1mn to 2mn	3.53
2mn to 5mn	4.14
5mn to 100mn	4.03
more than 100mn	2.51
Caricom small states < 5mn	6.78
Caricom small states less Guyana <5mn	5.73
non Caricom small states <5mn	4.31
all small states <5mn	4.76
all small states less Guyana <5mn	4.55
Curaçao and its Comparators:	
Curaçao	5.72**
Barbados	4.97

⁸ Considering all Caricom countries, excluding Haiti and Montserrat.

Antigua and Barbuda	7.34
St. Lucia	8.83
Grenada	5.24
Seychelles	3.86

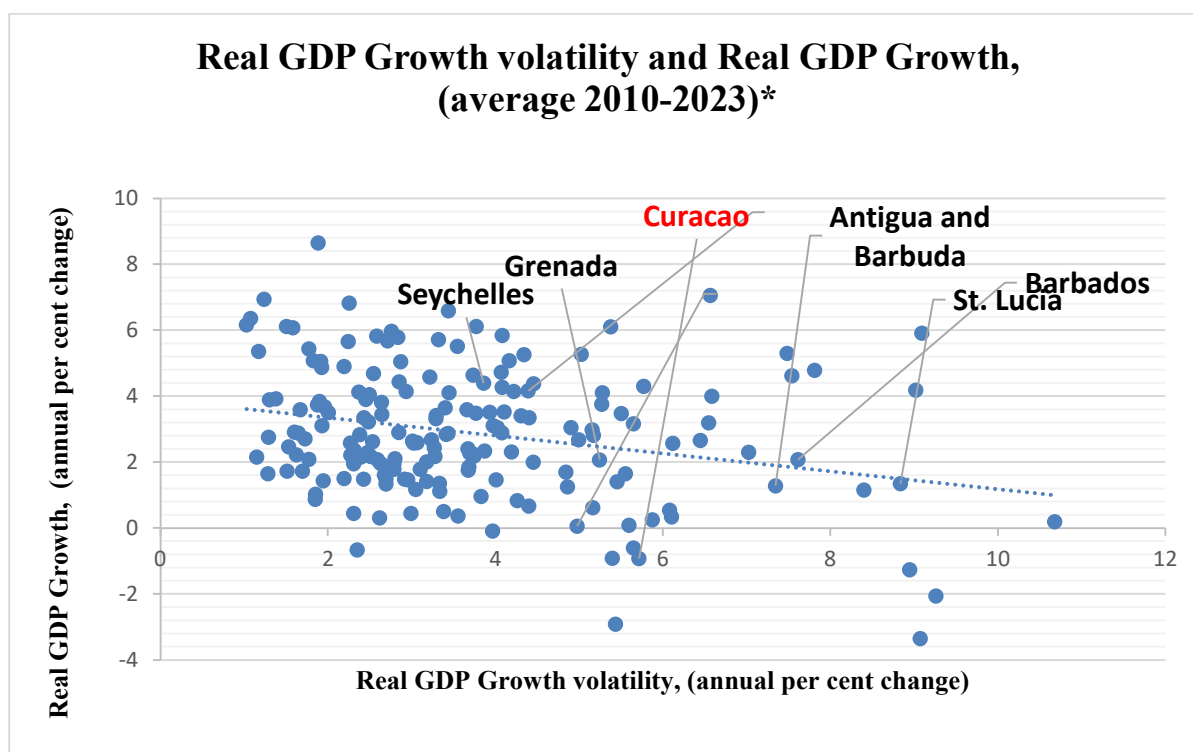
*The Standard Deviation of Average Real GDP growth (annual percent change) for 188 countries, over the period 2010-2023 was used as a proxy for GDP Volatility.

** Using WDI Online Database, IMF Data Mapper (2023) and IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, various years.

Source: WDI Online Database (2023), IMF Data Mapper (2023) and IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, various years.

3.5 Relationship between GDP Growth and volatility

The scatterplot below (**Figure 6**) indicates that countries with lower GDP volatility have higher economic growth. This is not surprising as higher GDP volatility creates uncertainty in the economic environment, making businesses and investors more hesitant to make long-term investments. When economic conditions are unstable and unpredictable, businesses may delay or scale back their investment plans. Uncertainty increases the perceived risk of investments, leading to a reduced appetite for capital expenditure, which can hamper economic growth. In addition, volatile GDP growth can disrupt the efficient allocation of resources in an economy.



Source: Author generated using IMF Data Mapper (2023). (Real GDP values for Curaçao were generated using WDI Online Database (2023) and IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022).

*In a dataset of 188 countries, 6 countries with outlier characteristics were removed. These were; Libya (GDP volatility - 33.12 and real GDP growth -2.21), South Sudan (17.99 and -2.58), Guyana

(19.28 and 14.39), Maldives (14.95 and 6.59), Eritrea (13.51 and 4.31) and Venezuela, RB (12.75 and -6.94).

Figure 6: Real GDP Growth volatility and GDP Growth, 2010-2023 for 182 countries.

3.6 Per capita GDP

The data in **Table 23** shows that Caricom small states have experienced relatively high levels of per capita GDP in spite of being small, with Barbados and Antigua and Barbuda recording GDP per capita (average annual value 2020-2021) at US\$16,934.63 and US\$15,284.52, respectively. Note though and as can be seen in the table Caricom GDP per capita is not as high as in non-Caricom small states for the overall period examined (1980-2021).

Curaçao has a relatively high per capita GDP (US\$17,314.00 for the period 2020-2021), although it took a hard hit on account of the Covid - 19 pandemic. Note though, that in relation to its peers; Barbados, Antigua and Barbuda, St. Lucia and Grenada, Curaçao has a higher GDP per capita (average annual value for 2020-2021) and this is an excellent base from which to plan and to continue the development of the Curaçao economy.

Table 22: GDP per capita (current US\$), average annual.

Countries by Population Size	1980-1989	1990-1999	2000-2009	2010-2019	2020-2021
less than 500,000	8070.29	14364.62	22420.38	29171.34	29743.73
500,000 to 1mn	3131.81	6793.30	11775.08	18227.67	19992.25
1mn to 2mn	3160.96	4280.73	8283.65	12538.66	13172.79
2mn to 5mn	3862.79	3906.35	7841.73	12332.42	12290.03
5mn to 100mn	3963.80	6195.43	9632.61	13854.24	15037.47
more than 100mn	3399.66	6069.78	8214.15	11635.57	12415.14
Caricom small states < 5mn	2996.88	5148.78	8964.43	12074.48	11439.02
Caricom small states less Guyana <5mn	3195.99	5515.77	9537.27	12610.27	11689.70
non Caricom small states <5mn	6161.30	8798.92	15018.81	21375.94	22312.72
all small states <5mn	5413.35	8090.69	13955.20	19784.90	20427.94
all small states less Guyana <5mn	5502.35	8201.99	14117.74	19973.44	20590.07
Curaçao and its Comparators:					
Curaçao	7677.14*	12800.93*	17781.92*	19284.41**	17,314.00***
Barbados	5577.72	8800.59	14040.51	17331.11	16934.63
Antigua and Barbuda	3934.71	8694.93	12879.51	15024.48	15284.52
St. Lucia	2185.58	4901.46	6876.69	10213.24	8936.19
Grenada	1721.17	3429.00	5910.91	8136.97	8724.07
Seychelles	2959.20	6593.72	9836.64	14642.40	13731.15
*Curalyse macro economic model (Ministry of Economic Development, 2023).					
**2011-2019					
*** Per capita GDP (U.S. dollars) US\$16,492 (2020) and US\$18,135 (2021) (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions 2023).					
Source: WDI Online Database (2023).					

A note of caution here: although per capita GDP in small states may appear high, it can be misleading when the population is low and scattered. Because a high proportion of income in these small states are used to cover the fixed costs of government and so per capita numbers tend to exaggerate economic conditions. These high fixed costs and the high cost of importing transcribe that the effective purchasing power of the “remaining” per capita GDP, is much lower than it looks on the surface.

A deeper understanding of the growth performance of small Caricom states between 2000-2009 and 2010-2019 can be gleaned by a reference to the transition probability matrices (TPMs) below (**Table 24**). Specifically, TPM’s can be used to understand the persistence and mobility of economic growth performance of small Caricom and other states. Growth is classified into four categories here:

- a – negative (< 0)
- b- weak or low growth (0 to 1)
- c – moderate (1 to 4)
- d – strong (> 4)

For each TPM the elements that are on the leading diagonal show persistence, that is, a to a, b to b and so on.

Table 23: TPM for various blocks of economies 2000-2009 to 2010-2019.

Caricom countries				
	To			
From	a	b	c	d
A	0	0	9	0
B	0.33	0.33	0.33	0
C	0.11	0.11	0.78	0
D	0	0.33	0.67	0
non-Caricom countries				
	a	b	c	d
A	0	0	0	1
B	0.00	0.17	0.67	0.17
C	0.04	0.07	0.64	0.25
D	0.05	0.00	0.48	0.48
small countries				
	a	b	c	d
A	0	0	0	1.00
B	0.11	0.22	0.56	0.11
C	0.05	0.08	0.68	0.19
D	0.04	0.04	0.50	0.42
large countries				
	a	b	c	d
A	0	0	0	1
B	0.00	0.33	0.50	0.17

C	0.06	0.02	0.66	0.26
D	0.03	0.02	0.38	0.57
Source: Own derivations.				

In small Caricom states there is a higher probability of moving from weak growth to negative growth (0.33 against 0.00) and from moderate growth to negative growth (0.11 against 0.64) as compared to non-Caricom small states.

There is also a higher probability in Caricom small states of moving from strong growth to weak growth (0.33 against 0.00), from moderate growth to weak growth (0.11 against 0.07) and a stronger degree of persistence by small Caricom states remaining in low growth as compared to non-Caricom small states (0.33 against 0.17).

There is a higher probability of a small Caricom state moving from high growth to moderate growth (0.67 against 0.48) or staying in moderate growth (0.78 against 0.64) as compared to non-Caricom small states. Note though, there is a lower probability of small Caricom states moving from weak growth to moderate growth (0.33 as compared to 0.67) when compared to non-Caricom small states. Significantly for non-Caricom states there is a high probability of persistence in that an economy starting off with a high level of average annual growth in the period 2000-2009 has a high probability of remaining in a state of high average per annum growth in the period 2010-2019 (0.48).

There is also a high degree of persistence of small Caricom states in the category weak growth to weak growth and (0.33) a high persistence by Caricom small states in the category moderate growth to moderate growth (0.78).

Altogether if the TPM for Caricom is interpreted as representing Curaçao, then we have a situation of high persistence of staying in low growth or moderate growth.

There is a higher probability of persistence for small states starting off with low growth remaining in low growth (0.11 as compared to 0.00). There is a lower probability of large states moving from high growth to low growth or moderate growth to low growth in large states as compared to small states. There is a higher probability in large states of remaining in high growth as compared to small states. There is a higher probability in large states of moving from moderate growth to high growth or from low growth to high growth.

The sum of the diagonal elements in the large states TPM is 1.57. This can be interpreted as a high level of persistence.

3.7 Inflation

Table 24: Inflation rate, end of period consumer prices (Annual percent change), average annual.

Countries by Population Size	2010-2019	2020-2022	2023-2028
Caricom small states < 5mn	2.91	8.19	3.50
Caricom small states less Guyana <5mn	3.00	8.49	3.36
non Caricom small states <5mn	2.72	5.36	3.30
all small states <5mn	2.76	5.89	3.33
all small states less Guyana <5mn	2.77	5.91	3.31
Curaçao and its Comparators:			
Curaçao	1.74*	4.4**	2.38***
Barbados	3.78	6.27	2.98
Antigua and Barbuda	1.57	4.40	2.28
St. Lucia	1.51	3.83	2.08
Grenada	1.17	1.53	2.37
Seychelles	2.72	4.73	3.45
*Inflation, consumer prices (annual %), WDI Online Database (2023).			
** Central Bureau of Statistics, 2023.			
*** CPI end of period, (2023-2027), (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022).			
Source: WDI Online Database (2023), IMF Online Data Mapper (2023) and (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022).			

Table 25 shows inflation data across various groups of economies based on their population sizes. The inflation rate is an important macroeconomic variable as it shows the pace at which value of money is being eroded. The data indicates that during the period of 2010-2019, Caricom small states, with and without Guyana, experienced higher inflation rates compared to non-Caricom small states. Similarly, for the period of 2020-2022, the average annual inflation in Caricom small states surpassed that of non-Caricom small states. However, in the medium-term period of 2023-2028, the average annual inflation rates in Caricom small states are expected to align more closely with those of non-Caricom small states.

It is worth noting that Curaçao exhibited an average annual inflation rate of 1.74% during the 2010-2019 period and 4.4% during the period 2020-2022. For the projected period of 2023-2027, the IMF anticipates an average annual inflation rate of 2.38% for Curaçao. Despite these fluctuations, the actual and expected inflation rates of Curaçao is not out of sync with its listed comparator states, although Grenada stands out for its notably lower inflation rates.

3.8 Structure of Production

3.8.1 Services

Table 25: Services, value added (% of GDP), average annual.

Countries by Population Size	1980-1989	1990-1999	2000-2009	2010-2019	2020-2021
less than 500,000	56.65	62.04	66.07	68.03	68.18
500,000 to 1mn	49.35	49.02	56.40	59.00	58.10
1mn to 2mn	46.18	54.18	51.94	58.88	58.82
2mn to 5mn	46.79	49.05	51.40	52.16	54.75
5mn to 100mn	45.22	47.77	49.08	52.16	53.10
more than 100mn	40.91	48.80	52.70	55.80	55.66
Caricom small states < 5mn	58.55	59.06	61.94	63.41	61.89
Caricom small states less Guyana <5mn	60.57	62.07	64.01	65.04	64.14
non Caricom small states <5mn	46.55	52.33	56.60	59.36	60.25
all small states <5mn	50.44	53.89	57.67	60.09	60.56
all small states less Guy <5mn	50.80	54.43	57.99	60.32	60.94
Curaçao and its Comparators:					
Curaçao	na	na	76.09	74.30	74.57
Barbados	53.97	71.35	72.40	72.91	72.24
Antigua and Barbuda	73.90	73.64	71.89	69.42	64.90
St. Lucia			70.53	75.00	72.16
Grenada	61.30	64.28	65.46	67.96	66.02
Seychelles	61.37	57.76	59.50	67.56	68.25
Source: Author's calculations using WDI Online Database (2023).					
Description of Data: "Services correspond to ISIC divisions 50-99 and they include value added in wholesale and retail trade (including hotels and restaurants), transport, and government, financial, professional, and personal services such as education, health care, and real estate services. Also included are imputed bank service charges, import duties, and any statistical discrepancies noted by national compilers as well as discrepancies arising from rescaling. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The industrial origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3 or 4" (WDI 2023).					

Table 26, highlights services, value added as a per cent of GDP, with the clear indication being that smaller countries tend to have large services sector as a proportion of GDP. Indeed, one can see that for the time period 2010 to 2019 for countries with a population less than 500,000 the average annual share of the services sector in total GDP stood at 68.03%, whereas in countries with a population of size over 100 million, the services sector accounted for only 55.80% of GDP. Comparably, over the period 2020-2021 the services sector average annual contribution to GDP increased albeit slightly to 68.18% for small states less than 500,00 whereas over the same period the services share of GDP declined for countries with a population over 100 million, to 55.66%.

The services sector is extremely important to Caricom countries, progressively contributing more than half of member states' GDP, on average for the period 1980 to 2021. It is also the case that the services sector is vital to non-Caricom countries with its contribution gradually increasing such that the average annual contribution of the services sector climbed from 46.5% on average per annum in the period 1980-89 to 60.25% in the period 2020-21 (the corresponding numbers for Caricom small states are 58.5% to 61.89% over the same time period).

Observe that services represent a particularly crucial sector to the economy of Curaçao and over the last two decades has contributed an average of approximately 75% to the islands GDP on average per annum.

Given the typically small resource base of these Caricom countries, having a large services sector has helped to provide significant employment opportunities as service-based industries tend to be labour-intensive. The large services sector has also contributed to economic resilience and stability, in some measure. Indeed, compared to industries such as manufacturing or agriculture, services are less vulnerable to fluctuations in commodity prices or global supply chain disruptions. This resilience of the services sector would no doubt have helped some Caricom countries cushion the economy during economic downturns and provide more stable revenue streams and in so doing facilitated the relatively high per capita GDP, illustrated previously. At the same time though, the heavy reliance of small economies on the services sector can make them more susceptible to external shocks. Factors such as global economic downturns, political instability, natural disasters or shifts in consumer preferences can significantly impact the demand for services. This vulnerability can lead to economic instability and fluctuations in revenue. During the recent Covid-19 pandemic, this was most evident.

Note carefully that among all the listed categories of economies by population size, Curaçao has the highest share of the services sector in total output. For 2021, Curaçao ranked 4th in the Caribbean⁹ and 10th globally¹⁰ in terms of the size of their services sector as a % GDP, which stood at 74.20%. Curaçao, however, needs to spend a considerable amount of time (and indeed this is reflected in the NES) in developing the quality and diversity of its service sector. Specifically, the NES emphasizes a focus on creative industries, educational services, financial services, IT services, port and maritime services and the blue economy.

3.8.2 Tourism: Annual Arrivals and Receipts

Table 26: International tourism, number of arrivals and % change.

Countries by Population size	1995-1999	2000-2009	2010-2019	1995-2019	2010-2019
	Number of Arrivals			% change	
less than 500,000	783798	929119	1164735	207.12	46.21
500,000 to 1mn	351329	448585	830987	1269.81	167.48
1mn to 2mn	1440469	2060511	3152206	226.00	36.29
2mn to 5mn	1871458	2935283	4534674	1894.76	129.54
5mn to 100mn	7928687	9135510	11859088	547.35	87.87

⁹ Curacao stood 4th to Bahamas (78.58%), Cuba (74.96%) and Turks and Caicos Islands (74.37%).

¹⁰ Out of 196 countries.

more than 100mn	20278477	28568431	37195768	345.94	80.40
Caricom small states < 5mn	709815	977991	1314113	157.01	33.91
Caricom small states less Guyana <5mn	762050	1049774	1405431	153.36	27.24
non Caricom small states <5mn	1279108	1844051	2718467	1109.65	102.17
all small states <5mn	1166975	1689821	2461332	897.95	89.37
all small states less Guy <5mn	1183651	1711672	2493375	897.95	89.37
Curaçao and its Comparators:					
Curaçao	415000	586500	1028400	226.52	69.69
Barbados	968000	1122000	1166800	4.21	-19.30
Antigua and Barbuda	520200	747000	891000	131.54	31.35
St. Lucia	537400	779800	1015900	199.75	23.98
Grenada	378800	354400	441000	42.55	18.20
Seychelles	133800	147400	293700	237.01	124.08
Source: WDI Online Database (2023).					
Description of Data: “International inbound tourists (overnight visitors) are the number of tourists who travel to a country other than that in which they have their usual residence, but outside their usual environment, for a period not exceeding 12 months and whose main purpose in visiting is other than an activity remunerated from within the country visited. When data on number of tourists are not available, the number of visitors, which includes tourists, same-day visitors, cruise passengers, and crew members, is shown instead. Sources and collection methods for arrivals differ across countries. In some cases data are from border statistics (police, immigration, and the like) and supplemented by border surveys. In other cases data are from tourism accommodation establishments. For some countries number of arrivals is limited to arrivals by air and for others to arrivals staying in hotels. Some countries include arrivals of nationals residing abroad while others do not. Caution should thus be used in comparing arrivals across countries. The data on inbound tourists refer to the number of arrivals, not to the number of people traveling. Thus a person who makes several trips to a country during a given period is counted each time as a new arrival” (WDI 2023).					

A critical dimension of the services sector for Caricom states in particular, is the tourism industry. **Table 27** above shows the number of tourist arrivals to the various economies, grouped by population size. Between 1995 and 2019 the average annual growth in the number of international tourists to Caricom small states was 157.01%, whilst non-Caricom small states realized a corresponding increase of 1109.65% in the number of international tourist arrivals to their shores.¹¹ Between 2010 and 2019 there was an increase in international tourist arrival traffic to Caricom small states of 33.91% as compared to 102.17% for non-Caricom small states.

¹¹ The stronger performing non-Caricom small states with a population less than 5 mn, included Armenia (15683%), Georgia (8989%), Bhutan (6483%), Cabo Verde (2607%), Albania (2007%), Gambia (1277%) and Iceland (944%).

Visitor arrival traffic to Curaçao in the two listed time periods, 1995 to 2019 and 2010 to 2019 superseded that of all the listed comparator states, except Seychelles. (Seychelles relies heavily on tourism and its tourism sector has been an essential driver of its economic growth. The government has been actively promoting its tourism sector and has put in place policies to attract investment and to help the sector grow).¹²

3.8.3 International tourism, receipts

The indication from the **Table 28** below is that smaller states are much more dependent on tourism receipts (as a % of GDP) as compared to larger states. Given the thin resource base of most small states, this is not surprising.

Table 27: International tourism, receipts (current US\$mn) and average annual International tourism, receipts as a % GDP.

Countries by Population Size	1995-1999	2000-2009	2010-2019	2000-2009	2010-2019
less than 500,000	243	292	527	18.85	25.12
500,000 to 1mn	199	718	1370	12.37	19.77
1mn to 2mn	490	724	1305	6.11	6.36
2mn to 5mn	504	959	2117	5.59	5.94
5mn to 100mn	3598	4285	7297	3.22	3.25
more than 100mn	13792	14874	27297	1.5	1.31
Caricom small states < 5mn	404	585	818	14.44	24.66
Caricom small states less Guyana <5mn	433	644	818	15.64	24.66
non Caricom small states <5mn	371	667	1435	10.35	12.79
all small states <5mn	378	654	1326	11.02	14.89
all small states less Guy <5mn	382	664	1326	11.15	14.89
Curaçao and its Comparators:					
Curaçao	217	277	649	13.18*	21.53
Barbados	683	935	988	24.71	20.52
Antigua and Barbuda	0	0	853		63.37
St. Lucia	253	292	617	25.68	34.44
Grenada	81	99	305	15.18	31.58
Seychelles	199	295	493	35.72	36.21
Source: Author's calculations using WDI Online Database (2023).					
* Due to limited available data for Curaçao, data for 2009 was used for a proxy for the period 2000-2009. International tourism, receipts (current US\$) for 2009 at US\$378 million was sourced from WDI (2023) and Nominal GDP US\$2869 million for 2009 was sourced from (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions 2011, pg. 32).					

¹² Since the establishment of an International Airport in 1972 and the subsequent decline of the copra market, tourism has experienced significant growth in Seychelles, becoming the primary driver of the country's economy. The natural assets of a tropical climate, beaches, landscape and unique flora and fauna have become a main attraction for tourists visiting the islands and form the foundation of Seychelles' allure as a tourist destination.

Description of Data: “International tourism receipts are expenditures by international inbound visitors, including payments to national carriers for international transport. These receipts include any other prepayment made for goods or services received in the destination country. They also may include receipts from same-day visitors, except when these are important enough to justify separate classification. For some countries they do not include receipts for passenger transport items. Data are in current U.S. dollars” (WDI 2023).

For Curaçao, the contribution of tourism receipts to GDP has increased from an annual average of 13.2% in 2009 to an annual average of 21.5% in the time period 2010-2019. These numbers are much lower than the associated numbers in the listed comparator states, for both time periods (**Table 28**). These lower numbers for Curaçao may be motivated by an interplay of factors including the islands accessibility to tourists in terms of cost, the level of marketing and promotion used to attract potential visitors, infrastructure and accommodation options and the competitive landscape of its comparators.

3.8.4 Week-at-the-Beach Index

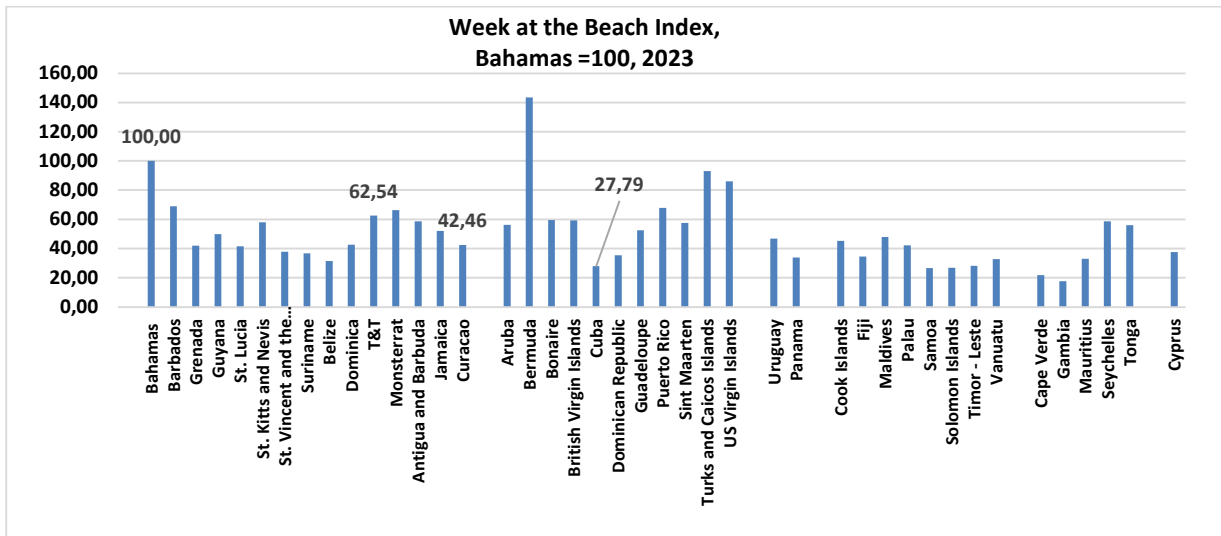
From another dimension, the Week-at-the-Beach Index is calculated (shown below). The index put forward by Laframboise et. al (2014)¹³ sought to track the price of a 7-day vacation, per traveler, at various Caribbean destinations relative to other international destinations. To construct the index, three primary cost categories for a week-long beach vacation were taken into account; hotel, food, and transportation. The data for these categories were sourced uniformly, ensuring consistency across all countries included in the index.

Broadly following the approach of Laframboise et. al (2014), data for a 7-day stay at a 3-star hotel was sourced from Travelocity for various small states in different regions; the Americas, Asia, Europe and the Caribbean. The cost of meals, water, coffee, beer and transport to and from the airport were also taken into account. The following equation was used as per Laframboise et. al (2014) approach:-

$$\begin{aligned} \text{Total Cost} = & 7 * (\text{3 star hotel}) + 2 * (\text{taxi fare from or to airport}) + 7 \\ & * (\text{2 inexpensive meal} + \text{1 mid – range meals}) + 7 * 2 \text{ liters water} + 7 * \text{liters} + 7 \\ & * 0.3 \text{ liter beer} + 7 * \text{coffee} \end{aligned}$$

(This index as outlined by Laframboise et. al, while serving as a lighthearted measure of comparative vacation prices, excludes the cost of airfare and does not offer a definitive assessment of tourism competitiveness or exchange rate alignment).

¹³ 'Revisiting Tourism Flows to the Caribbean: What is Driving Arrivals?', IMF Working Paper.



Source: Author generated building on Laframboise et. al (2014).

Figure 7: Week at the Beach Index for 26 small states in various regions in the world.

Following the above methodology, **Figure 7** was generated, using the Bahamas as a base economy. The results show that amongst the most expensive places in the Caribbean (considering 26 small states), Bermuda was the most expensive travel destination with a cost of US\$4,048 followed by the Bahamas with a cost of US\$2,822. Amongst the least expensive Caribbean countries to visit are Belize and Cuba, with a cost of US\$784 and US\$886.00, respectively. Curaçao is the 8th cheapest destination to visit in the Caribbean with a cost of US\$1,198.19. The indication is that Curaçao has a relatively moderately priced tourism sector in relation to other small states.

3.8.5 Manufacturing

Table 28: Manufacturing, value added (% of GDP), average annual.

Countries by Population Size	1980-1989	1990-1999	2000-2009	2010-2019	2020-2021
less than 500,000	6.03	7.06	5.71	5.88	4.26
500,000 to 1mn	11.94	10.92	9.22	7.70	7.80
1mn to 2mn	16.76	18.62	14.51	13.06	13.13
2mn to 5mn	15.38	13.10	12.59	12.01	12.01
5mn to 100mn	14.79	15.50	14.09	12.83	13.35
more than 100mn	16.73	16.22	16.27	15.15	15.17
Caricom small states < 5mn	7.90	6.59	6.17	6.62	6.60
Caricom small states less Guyana <5mn	7.49	6.92	6.34	6.71	6.84
non Caricom small states <5mn	12.53	12.52	10.54	9.90	9.49
all small states <5mn	11.21	11.34	9.77	9.30	8.92
all small states less Guy <5mn	11.20	11.48	9.85	9.35	9.00
Curaçao and its Comparators:					
Curaçao			7.30	8.33	4.00
Barbados	8.00	8.46	7.47	5.45	4.97
Antigua and Barbuda	3.23	1.87	1.79	2.47	2.38
St. Lucia			3.97	2.98	3.00
Grenada	3.42	4.49	3.72	3.32	3.22
Seychelles	9.21	12.49	12.38	6.65	5.19
Source: Author's calculations using WDI Online Database (2023).					
Description of Data: "Manufacturing refers to industries belonging to ISIC divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3. Note: For VAB countries, gross value added at factor cost is used as the denominator" (WDI 2023).					

In general and as can be seen in **Table 29** above as the population size of a country increases, the average size of its manufacturing value added (as a % of GDP), increases. Indeed, Caricom small states with a population less than 5 million, tend to have relatively small manufacturing sectors, and as compared to non-Caricom small states. With limited manufacturing capacity, small states often have to rely on imports to meet their domestic consumption needs. This can result in higher import dependency, which exposes them to risks such as fluctuations in global commodity prices, supply chain disruptions and currency exchange rate fluctuations. It can also contribute to trade imbalances and a strain on foreign exchange reserves. In addition, a small manufacturing sector (as compared to a large manufacturing sector) can lower the volume and quality of job opportunities within a country and this can lead to challenges in terms of unemployment, underemployment and an insufficiency of sustainable jobs.

The share of the manufacturing sector GDP in Curaçao tumbled from 8.3% on average per annum in the period 2010-2019 to 4% per annum in the time period 2020-2021. Significantly, the free zone area

in Curaçao represents a promising channel towards enhancing the level of manufacturing economic activity in the country. This is particularly important considering Curaçao's heavy reliance on the services sector and the need to improve its balance of payment position. By strategically introducing a few firms in the free zone area, Curaçao can stimulate domestic production and pursue a small-scale competitive import substitution strategy. This move has the potential to possibly bolster manufacturing production and contribute to the diversification of the economy whilst possibly helping to earn some foreign exchange or at a minimum, reducing the demand for foreign exchange.

3.8.6 Agriculture

Table 29: Agriculture, forestry, and fishing, value added (% of GDP), average annual.

Countries by Population Size	2000-2009	2010-2019	2020-2021
less than 500,000	7.39	7.42	7.37
500,000 to 1mn	12.84	11.05	11.21
1mn to 2mn	6.59	4.80	3.93
2mn to 5mn	10.58	8.90	8.23
5mn to 100mn	14.46	12.37	12.61
more than 100mn	14.23	12.17	12.10
Caricom small states < 5mn	6.65	6.22	5.99
Caricom small states less Guyana <5mn	4.63	4.78	5.22
non Caricom small states <5mn	9.72	8.41	8.08
all small states <5mn	9.15	8.02	7.68
all small states less Guy <5mn	8.83	7.80	7.57
Curaçao and its Comparators:			
Curaçao	0.61	0.24	0.20
Barbados	1.66	1.33	1.49
Antigua and Barbuda	1.64	1.76	2.19
St. Lucia	3.28	2.14	1.86
Grenada	4.65	5.36	5.12
Seychelles	2.84	2.34	2.12
Source: Author's calculations using WDI Online Database (2023).			
Description of Data: "Agriculture, forestry, and fishing corresponds to ISIC divisions 1-3 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 4. Note: For VAB countries, gross value added at factor cost is used as the denominator" (WDI 2023).			

In terms of agriculture as a percent of GDP observe for the various time periods listed in the **Table 30** above, the average annual value of agriculture, forestry and fishing as a per cent of GDP tended to be higher in larger countries (although with countries in the population bracket 500,000 to 1 mn people, there was a high level of agriculture forestry and fishing value added as a percent of GDP).¹⁴

¹⁴ This high value was mainly on account of the % share of agriculture in GDP in Comoros (31.52%), Guyana (23.56%) and Bhutan (14.73%).

Given its very small size (444 km²) it is not surprising that Curaçao has a very small agricultural sector. Even more, among all its comparator economies, Curaçao's agricultural share of total output consistently ranks at the bottom across the three periods examined; 2000-2009 (0.61%), 2010-2019 (0.24%) and 2020-2021(0.20%). In addition, the data also shows a progressive decline in the island's agricultural contribution to GDP. Policymakers in Curaçao would need to take stock as there are many direct and immediate opportunities herein for agro-entrepreneurs in Curaçao, given the relatively large size of its tourism sector. However, to be dynamic and efficient agro-entrepreneurs targeting the tourism sector should be encouraged to deploy a more technology slanted approach. In this regard, perhaps the government of Curaçao should consider a brand-new free zone area catering exclusively to the production of output for the hotel sector.

3.8.7 Dependence on Food imports

Table 30: Food imports (% of merchandise imports), average annual.

Countries by Population Size	1980-1989	1990-1999	2000-2009	2010-2019	2020-2021
less than 500,000	23.68	21.91	21.33	23.83	24.47
500,000 to 1mn	23.49	20.13	18.76	19.53	19.15
1mn to 2mn	19.61	14.86	15.16	15.53	16.21
2mn to 5mn	16.16	17.43	17.54	14.67	15.80
5mn to 100mn	13.83	13.51	11.82	13.14	13.18
more than 100mn	14.04	12.67	10.73	10.60	11.66
Caricom small states < 5mn	21.42	19.45	17.08	20.21	20.80
Caricom small states less Guyana <5mn	22.18	20.03	17.31	20.74	22.19
non Caricom small states <5mn	21.25	19.21	19.17	18.63	18.49
all small states <5mn	21.31	19.27	18.76	18.96	18.93
all small states less Guy <5mn	21.54	19.41	18.83	19.05	19.14
Curaçao and its Comparators:					
Curaçao*	n.a.	n.a.	n.a.	20.86	25.68
Barbados	16.46	18.60	17.90	21.21	22.13
Antigua and Barbuda	23.86	21.83	18.35	26.78	n.a.
St. Lucia	24.29	24.93	22.57	24.07	27.64
Grenada	28.62	24.22	19.99	25.32	24.30
Seychelles	20.26	22.00	22.87	20.33	19.07
* Values for Curaçao are % of Total Imports generated using data provided from BACI (2023) where food imports <i>comprise the commodities</i> in HS sections 01 (<i>Animal Products</i>), 02 (<i>Vegetable Products</i>), 03 (<i>Animal and Vegetable Bi-Products</i>) and 04 (<i>Foodstuffs</i>). Source: Author's calculations using WDI Online Database (2023).					
Description of Data: "Food comprises the commodities in SITC sections 0 (<i>food and live animals</i>), 1 (<i>beverages and tobacco</i>), and 4 (<i>animal and vegetable oils and fats</i>) and SITC division 22 (<i>oil seeds, oil nuts, and oil kernels</i>)" (WDI 2023).					

Availability off data being assess by Mary-Rose

Insert data in yellow. Check.

Not surprisingly, smaller states have much higher food import bills (as a % of GDP), than larger states (see **Table 31**). This is obviously linked to their limited stock of arable land as well. After 2009, Caricom food imports as a % of merchandise imports were generally above that of non-Caricom small states. Significantly, when a country has a high food import bill, it puts pressure on the country's foreign exchange reserves as it requires spending foreign exchange on importing food. If the country's currency weakens, it can further increase the cost of imported food, leading to higher inflation rates. Note, also that reliance on external sources for a significant portion of the food supply leaves a country vulnerable to various risks. For example, changes in global food prices or disruptions in the global supply chain can significantly impact the availability and affordability of imported food items. Additionally, geopolitical tensions or trade disputes with supplier countries can lead to disruptions or restrictions on food imports, affecting the country's food security (as with the Covid-19 pandemic and the on-going Ukraine-Russia war).

As can be seen from the available data, Curaçao has a high dependence on imported food very much in line with the listed comparator states.

3.8.8 Scope for Import Substitution through Agriculture

Table 32 below illustrates that smaller countries tend to have smaller land areas, non-arable land areas, arable land areas and arable land per capita. The data for arable land hectares per person was sourced from the World Development Indicators (WDI) for 181 countries and converted to square meters (m²) per capita based on the categorizations used by (Becker, 2012).

When focusing on Caricom states with Guyana, the average value of arable land m² per capita stands at 972.4 m², however considering Caricom countries without Guyana this average plummet to 581.9 m².

Table 32 also shows in terms of land area, Curaçao is not significantly different to their peer comparator states and in terms of arable land there is some potential certainly when compared to Antigua and Barbuda, St. Lucia, Grenada and Seychelles. In this regard, the suggestion is made, that Curaçao given its high tourism inflow should consider a strategy using the free zone area to increase its production of agricultural goods, if only to supply the tourism sector, so as to save on the use of foreign exchange.

Table 31: Scope for Agricultural Import Substitution, 2020.

Countries by Population size	Land area (sq. km), 2020	Non-Arable Land (km ²) (Land area km ² - arable land km ²), 2020	Arable land (km ²), 2020	Arable land (m ² per capita), 2020
less than 500,000	6493.1	6366.5	126.6	526.5
500,000 to 1mn	43179.5	42326.5	853.0	1140.2
1mn to 2mn	21177.2	18346.6	2830.7	1800.4
2mn to 5mn	220232.8	213929.3	6303.6	2152.5
5mn to 100mn	644323.8	586545.0	57778.8	2306.3
more than 100mn	4063291.1	3499256.4	564034.7	1954.4
Caricom small states < 5mn	33675.0	33051.1	623.9	972.4
Caricom small states less Guyana <5mn	18840.9	18542.1	298.8	581.9
non Caricom small states <5mn	101182.3	97950.6	3231.6	1442.1
all small states <5mn	89269.2	86497.8	2771.4	1359.2
all small states less Guy <5mn	87663.5	84913.4	2750.1	1300.9
Curaçao and its Comparators:				
Curaçao*	444.0	399.6	44.4	291.4
Barbados	430.0	360.0	70.0	249.4
Antigua and Barbuda	440.0	400.0	40.0	431.7
St. Lucia	610.0	583.3	26.7	149.0
Grenada	340.0	310.0	30.0	242.6
Seychelles	460.0	458.5	1.5	15.2
* Curaçao values were generated by the author using (CIA, 2023) which states that Arable land use in Curaçao is 10% of land area (2018). Land area of Curaçao is 444km ² , therefore arable land use was found to be approximately 44.4km ² .				
Source: Author's calculations using WDI Online Database (2023).				
Description of Data: Land area (sq. km) – “Land area is a country's total area, excluding area under inland water bodies, national claims to continental shelf, and exclusive economic zones. In most cases the definition of inland water bodies includes major rivers and lakes” (WDI 2023). Arable land (hectares) – “Arable land (in hectares) includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded” (WDI 2023). Arable land (hectares per person) – “Arable land (hectares per person) includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded” (WDI 2023).				

3.9 Economic Vulnerability Index

Macroeconomic vulnerability refers to “a country’s susceptibility to harm by external forces as a result of exposure to such forces” (Khor, Kronenberg and Tumbarello 2016, pg 39). The interest in examining the economic vulnerability of developing countries has increased as global economic crises have unveiled their susceptibility to market fluctuations, prompting a greater focus on understanding and addressing their resilience to such shocks. The Economic Vulnerability Index (EcVI) developed by Briguglio (1995 and 1997) sought to explain the inconsistency that a country can be economically vulnerable but still have a relative high GDP per capita.

The EcVI has been used to address the unique challenges faced by Small Island Developing States (SIDS) arising from their small size, isolation and susceptibility to natural disasters. These factors, render such economies highly susceptible to external forces, jeopardizing their economic viability. According to Briguglio (1997), conventional measures such as GDP or GNP per capita may not adequately capture these vulnerabilities. Briguglio and Galea (2003) sought to improve Briguglio’s (1997) EcVI index, identifying four key component variables of the EcVI for SIDS. These are; (a) level of economic openness, (b) concentration of exports, (c) degree of peripherality and (d) dependence on strategic imports. The aggregation of variables in the composite index presented certain challenges and to address these, Briguglio and Cowards¹⁵ adopted a standardization approach¹⁶ for observations.

Comparatively, a simple methodology for calculating relative vulnerability was proposed by Becker (2012) which sought to arrange variables in relation to rank in order to generate more vulnerable countries. To capture vulnerability Becker’s (2012) method aimed at synthesizing the measures into an index. The index was created by calculating an equally weighted average across the rankings of five individual indicators used in this study. This approach provided an aggregate summary ranking that broadly indicated the most vulnerable states in the sample. Utilizing the methodology as outlined by (Becker, 2012), the average vulnerability rank of 181 countries was computed based on five macro-oriented variables; population size (2021), arable land km² (2020), distance to closest continent (2005), GNI (current US\$) (2021) and GNI per capita (current US\$) (2021). These variables were deployed to measure how every small state in a dataset of 181 countries ranks relative to all others, with larger EcVI values indicating more vulnerable countries. When considering population size, smaller states tend to be seen as more vulnerable than larger states. In the dataset of 181 countries Tuvalu was the smallest country in terms of population size and was given a unique rank¹⁷ of 181. Population data for 2021 was sourced from the WDI Online Database (2023).

Arable Land (km²) was also considered, as some small states have limited area and thus face challenges with food production. Arable Land in hectares for 2020 was sourced from WDI (2023) and converted to km² as per (Becker, 2012). Countries with smaller km² of arable land were seen as more vulnerable and ranked accordingly. Distance of the closest continent was sourced as per (Becker, 2012) from (SOPAC-UNEP, 2004). Specifically, the isolation variable was used for 180 of the 181

¹⁵ Cited in Briguglio (2003).

¹⁶ “ $(X_i - \text{Min } X) / (\text{Max } X - \text{Min } X)$ Where: X_i is an observed value in an array of observed values for a given variable. Max X is the highest value in the same array. Min X is the lowest value in the same array” (Briguglio and Galea 2003, pg. 5).

¹⁷ Unique ranks are assigned to individual data points within a dataset for each variable, ensuring that each data point receives an exclusive rank. This is done so that even if two data points have the same value, their ranks will be distinct.

countries in the author's dataset, (the author calculated an average value for Curaçao by determining the distance, in square kilometers, from Willemstad (the capital of Curaçao) to Caracas (the closest continental capital, located in Venezuela). If a country is within a continent, it was given a zero value as outlined by (Kaly, Pratt , & Mitchell , 2004).¹⁸ The most isolated small state in distance (km²) from the closest continent was Samoa and was given the highest vulnerability rank of 181. Each country was given a unique rank.

GNI (current US\$) was chosen instead of GDP (current US\$) as many small states depend on remittances and transfer payments as income sources and in this regard GNI is considered a more suitable measure than the value-added metric of GDP. Data for all countries for 2021 was sourced from (WDI Online Database, 2023). The country with the smallest GNI (current US\$) was seen as most vulnerable and given the highest rank.

GNI per capita for 2021 was also sourced from (WDI Online Database, 2023). Countries with smaller GNI per capita values were seen as more vulnerable and given higher ranks.

All variables were ordered in relation to population size, ranging from the smallest country to the largest. The average of each country's rank of the above 5 variables was then used to form their average EcVI value. These values were then summarized and categorized as per **Table 33** below to allow for comparisons between smaller and larger sized states in terms of population and demonstrates a clear trend wherein smaller countries tend to exhibit higher levels of vulnerability compared to larger countries.

Specifically, countries with a population size less than 500,000 display the highest average vulnerability rank in the dataset, standing at 145.2. Looking at Caricom states, these countries exhibit a higher vulnerability rank (136.1) compared to non-Caricom countries (126.4). Regarding Curaçao and its comparators, all countries exhibit high ranks of vulnerability, with Seychelles being the most vulnerable among them, with a rank of 147.2.

¹⁸ The Economic Vulnerability Index, SOPAC Technical Report (2004).

Table 32: EcVI Rank, Average.

Countries by Population size	Population Rank, 2021	Arable Land (km2)	Distance Rank, 2004	GNI (current US\$), 2021 Rank	GNI per capita, Atlas method (current US\$), 2021, Rank	EcVI, Average Rank
less than 500,000	169.0	164.8	161.5	162.3	68.6	145.2
500,000 to 1mn	151.5	145.9	144.4	142.5	86.2	134.1
1mn to 2mn	142.0	137.3	134.4	116.8	68.3	119.8
2mn to 5mn	125.5	117.2	119.5	106.3	85.7	110.8
5mn to 100mn	63.5	66.0	65.4	71.2	99.5	73.1
more than 100mn	7.0	18.8	28.7	20.6	97.5	34.5
Caricom small states < 5mn*	158.3	153.3	148.6	150.8	69.8	136.1
Caricom small states less Guyana <5mn	159.2	156.3	150.4	151.5	69.5	137.4
non Caricom small states <5mn	145.2	139.1	138.8	129.9	78.8	126.4
all small states <5mn	147.5	141.6	140.6	133.6	77.2	128.1
all small states less Guy <5mn	147.5	141.9	140.7	133.5	77.3	128.2
Curaçao and its Comparators:						
Curaçao	166.0	161.0	149**	155.0	47.0	132.3
Barbados	162.0	159.0	153.0	147.0	52.0	134.6
Antigua and Barbuda	174.0	164.0	173.0	165.0	55.0	146.2
St. Lucia	165.0	167.0	152.0	163.0	70.0	143.4
Grenada	168.0	166.0	143.0	170.0	76.0	144.6
Seychelles	173.0	180.0	156.0	167.0	60.0	147.2
*12 Caricom countries are considered (excludes Dominica and Montserrat).						
** Isolation – the average value for this variable was sourced using (282km - Distance from Willemstad, Curaçao to Caracas, Venezuela (distanceworld.com) and 287km - https://www.geodatos.net/en/distances/countries/from-Curaçao-to-venezuela)						
Source: Author's calculations using:						
Population (2021) - WDI Online Database (2023).						
Arable Land, hectares (2020) - WDI Online Database (2023). Conversion to km2 done by author.						
Distance (2005) – SOPAC-UNEP (2004).						
GNI (current US\$), (2021) - WDI Online Database (2023).						
GNI per capita, Atlas method (current US\$), (2021) - WDI Online Database (2023).						
Description of Data:						
Population, Total – “Total population is based on the de facto definition of population, which counts all residents regardless of legal status or citizenship. The values shown are midyear estimates)” (WDI 2023).						
Arable land (in hectares) – “includes land defined by the FAO as land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded” (WDI 2023).						
Distance to Closest Continent – “This indicator captures the proximity of a country to the nearest continent. Note that if a country is within a continent, this value is zero. Isolated countries may have a greater risk of loss of ecosystem types and species during periods of stress if they are far away from refugia and sources of recolonisation. Isolated countries also likely to support fewer species than						

those which are close to large continents, or biogeographic centres of radiation. Additionally, there is less chance of genetic interchange (part of genetic resilience) in isolated areas. The likelihood of isolation being an important part of a country's ecological resilience would be especially important if there are interactions with on-going human impacts. Countries close to sources of recolonisation are likely to be less at risk of permanent species losses, compared with those far away, particularly if they are small or fragmented" (SOPAC 2005, pg. 80).

GNI (current US\$) – "(formerly GNP) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. Data are in current U.S. dollars" (WDI 2023).

GNI per capita - "(formerly GNP per capita) is the gross national income, converted to U.S. dollars using the World Bank Atlas method, divided by the midyear population. GNI is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI, calculated in national currency, is usually converted to U.S. dollars at official exchange rates for comparisons across economies, although an alternative rate is used when the official exchange rate is judged to diverge by an exceptionally large margin from the rate actually applied in international transactions. To smooth fluctuations in prices and exchange rates, a special Atlas method of conversion is used by the World Bank. This applies a conversion factor that averages the exchange rate for a given year and the two preceding years, adjusted for differences in rates of inflation between the country, and through 2000, the G-5 countries (France, Germany, Japan, the United Kingdom, and the United States). From 2001, these countries include the Euro area, Japan, the United Kingdom, and the United States" (WDI 2023).

3.10 Labour Force Participation Rate (LFPR)

According to data in the **Table 34** below, Caricom countries generally have higher LFPR, albeit slightly, compared to non-Caricom small states over the last four decades. Policymakers within Caricom however, need to focus their efforts to raise the LFPR of all Caricom members closer to the 75.9% as recorded by the Bahamas in May 2023.¹⁹

Table 33: Labor force participation rate, total (% of total population ages 15+) (national estimate), average annual.

Countries by Population size	2010-2019	2020-2021
less than 500,000	61.49	60.01
500,000 to 1mn	57.17	59.14
1mn to 2mn	54.91	53.07
2mn to 5mn	59.76	62.93
5mn to 100mn	61.46	61.62
more than 100mn	61.61	57.40
Caricom small states < 5mn	64.15	61.67
Caricom small states less Guyana <5mn	65.66	61.67
non Caricom small states <5mn	58.48	59.53
all small states <5mn	59.24	59.76
all small states less Guyana <5mn	59.35	59.76
Curaçao and its Comparators:		
Curaçao*	30.26	30.1

¹⁹ In its May 2023, 'Monthly Economic and Financial Developments' report, the Central Bank of the Bahamas posted this at 75.9% (Central Bank of the Bahamas, 2023).

Barbados	65.06	n.a.
Antigua and Barbuda	n.a.	n.a.
St. Lucia	69.26**	67.45
Grenada	69.63***	n.a.
Seychelles	68.74****	65.92*****
<p>* Using data from WDI (2023) Curacao's LFPR stands at average annual value of 30.26% for the period 2010-2019 (however, we note, due to limited availability of data this average excludes the years 2010, 2012, 2016-2017 and 2019. Similarly, we use 2020 as a proxy for the period 2020-2021 at 30.1%.</p> <p>We also note, 'gross participation rate (labour force), in % of the population 15+' as sourced from Curaçao's Central Bureau of Statistics (2023) show that for the period 2010-2019, average annual LFPR stood at 57.85%. Due to limited availability of data, this average excluded the period 2010-2015. For the period 2020-2021, 2020 was used as a proxy for the period which stood at 56.40%.</p> <p>Using both data sources the trend narrative for Curacao's LFPR remains the same.</p> <p>Due to limited availability of data, excludes:</p> <p>**2010 and 2014-2016</p> <p>***2010-2012 and 2016-2019</p> <p>****2010 and 2012-2013</p> <p>*****2021</p> <p>Source: WDI Online Database (2023).</p> <p>Description of Data: <i>"Labor force participation rate for ages 15-24 is the proportion of the population ages 15-24 that is economically active: all people who supply labor for the production of goods and services during a specified period"</i> (WDI 2023).</p>		

Curaçao's LFPR is lower than that of all the other comparator states for which data is available. The authorities in Curaçao would have to try and encourage women to stay in the labour force longer, increase the retirement age and above all stimulate sustainable growth to try and counter the exodus of educated people. (As the labour force participation rate declines there is likely to be an adverse impact on tax revenues collected by the state as well).

3.11 Fiscal setting

Small states tend to face higher per capita costs of government relative to larger states. This is due to the fact that even with a small population, small states still need to provide essential public services. The limited population size makes it challenging to achieve economies of scale in the provision of public goods, leading to relatively higher costs per capita. In this regard, note that government expenditure as a share of GDP is generally larger for smaller countries compared to larger countries.

Note clearly though that non Caricom small states tend to have higher levels of government expenditure as a percentage of GDP than Caricom smaller states. The data also shows that general government debt as a percentage of GDP is much higher for Caricom small states than that for any of the other listed groups as shown in **Table 35**.

Table 34: Government Expenditure and General Government Gross Debt (average annual values for 2010-2019).

Countries by Population size	Government expenditure, (% of GDP)	General government gross debt (% of GDP)
	2010 – 2019, Average	
less than 500,000	38.42	60.60
500,000 to 1mn	29.68	55.99
1mn to 2mn	33.22	35.44
2mn to 5mn	34.42	52.27
5mn to 100mn	31.27	49.68
more than 100mn	25.92	66.14
Caricom small states < 5mn	28.06	73.20
Caricom small states less Guyana <5mn	28.36	75.58
non Caricom small states <5mn	37.29	47.97
all small states <5mn	34.79	52.79
all small states less Guyana <5mn	35.01	52.91
Curaçao and its Comparators:		
Curaçao	31.9 (2019)*	57.9 (2019)**
Barbados	32.58	132.28
Antigua and Barbuda	23.36	91.26
St. Lucia	24.63	59.38
Grenada	25.41	86.98
Seychelles	35.29	68.52
* 2019 value only per, Budgetary Central Government, Expenditure, (Percent of GDP), (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions 2022, pg. 39).		
** 2019 value only per, General Government, Gross government debt (Percent of GDP), (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions 2022, pg. 39).		
Source: WDI Online Database (2023) and IMF Data Mapper (2023).		

Due to limited data, values for Central Government Expenditure (% of GDP) and Gross Government Debt (% of GDP) in 2019 for Curaçao were sourced from the IMF (2022) and used as a proxy for the average of the period 2010-2019. As shown in the **Table 35** above, Curaçao's government expenditure in 2019 slightly exceeds the average of its comparators, which stood at 28.2% during the period 2010-2019. Conversely, Curaçao's government debt of 57.9% in 2019, is considerably lower than the average debt level of its comparators, which averaged 87.7% over the same period, 2010-2019.

Further and as can be seen from the data in **Table 36** below small states tend to have limited fiscal space and this in turn compromises their capacity to engage countercyclical responses to adverse fiscal shocks. Specifically, Caricom small states are on average characterized by persistent fiscal deficits. It is well known that persistent fiscal deficit tends to lead to an accumulation of government debt. The government needs to borrow money to finance its deficit spending, typically by issuing bonds or taking loans from domestic or international lenders. Over time, the outstanding debt if it increases will result in a higher debt-to-GDP ratio. This can have negative consequences such as

increased interest payments, reduced confidence from investors and creditors and potential constraints on future government spending. The fiscal deficit (as a % of GDP) for non-Caricom small states are even larger than Caricom countries for 2021.

In 2021, Curaçao had a fiscal deficit as a percentage of GDP of 6%, which was much higher than in the various listed comparator states. The Landspakket²⁰ presents a set of crucial reform priorities aimed at enhancing various aspects of governance across different themes. Themes A-C focus on important fiscal governance reforms, such as enhancing expenditure controls, modernizing the procurement system, promoting transparency, and restructuring tax administration. When these changes are made, they would likely help the fiscal position and the debt situation (see annex 2, page 52 of the (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022) document for a useful summary).

Table 35: Fiscal Balance (% of GDP).

Countries by Population size	2021
less than 500,000	-1.51
500,000 to 1mn	-4.42
1mn to 2mn	-3.67
2mn to 5mn	-2.62
5mn to 100mn	-3.65
more than 100mn	-5.54
Caricom small states < 5mn	-1.47
Caricom small states less Guyana <5mn	-0.92
non Caricom small states <5mn	-2.97
all small states <5mn	-2.70
all small states less Guyana <5mn	-2.63
Curaçao and its Comparators:	
Curaçao	-6.0*
Barbados	-0.90
Antigua and Barbuda	
St. Lucia	-1.90
Grenada	2.10
Seychelles	-2.60
*Overall balance, Prel. (2021), (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022).	
Source: Author's Calculations using https://www.focus-economics.com/economic-indicator/fiscal-balance/ and WDI Online Database (2023).	

²⁰ The Landspakket is an agreement between the governments of Curacao and the Netherlands that aims to address Curacao's financial and economic challenges, promote sustainable economic growth and enhance fiscal responsibility through the execution of mutually agreed measures and economic and structural reforms. The Landspakket encompasses a range of initiatives encompassing public finance, fiscal policy, healthcare, social security, labor market, and structural reforms in sectors like education and energy.

It is possible, following, Becker (2012) to provide a crude indication of the capacity of small states to reap economies of scale in the provision of public goods. Becker (2012) noted that a rough indication of the capacity of small states to benefit from economies of scale can be assessed by calculating the deviation of the income of the small state from the median income of the group of small states. On this basis, **Table 37** below was calculated. Observe that many Caribbean small states do not, according to this crude measure, have the “mass” to benefit from economies of scale in the provision of public goods. Note though that Curaçao is only about 13% away from the sample median.

Table 36: Capacity to benefit from economies of scale.

Countries	GDP US\$mn	Population	% deviation
Tuvalu	44.8	11204	-98.4
Nauru	107.8	12511	-96.1
Palau	212.8	18024	-92.2
San Marino	1527.6	33745	-44.2
Monaco	7491	36686	173.8
Marshall Islands	221.3	42050	-91.9
Sint Maarten (Dutch part)	1080.1	42846	-60.5
American Samoa	648.3	45035	-76.3
Turks and Caicos Islands	874.4	45114	-68
St. Kitts and Nevis	894.8	47606	-67.3
Faroe Islands	2998.2	52889	9.6
Greenland	2748.5	56653	0.5
Bermuda	6565.1	63764	140
Cayman Islands	5364.4	68136	96.1
Dominica	505.3	72412	-81.5
Andorra	2893.9	79034	5.8
Antigua and Barbuda	1425.2	93219	-47.9
Seychelles	1574.2	99258	-42.5
St. Vincent and the Grenadines	837.9	104332	-69.4
Tonga	475.1	106017	-82.6
Aruba	3225.1	106537	17.9
Micronesia, Fed. Sts.	316.2	113131	-88.4
Grenada	1024.7	124610	-62.5
Kiribati	185.2	128874	-93.2
Curaçao	2382	152369	-12.9
Guam	5342	170534	95.3
St. Lucia	1676.7	179651	-38.7
Samoa	843.5	218764	-69.2
Sao Tome and Principe	377.6	223107	-86.2
Barbados	4162	281200	52.1
French Polynesia	5653.5	304032	106.7
Vanuatu	826.4	319137	-69.8
Iceland	20051	372520	633

Belize	2293.4	400031	-16.2
Bahamas, The	10773.6	407906	293.8
Brunei Darussalam	13215.6	445373	383.1
Malta	14760.9	518536	439.6
Maldives	5114.2	521457	87
Cabo Verde	1835.6	587925	-32.9
Suriname	4296.1	612985	57
Montenegro	4576.2	619211	67.3
Luxembourg	68993.9	640064	2422.2
Macao SAR, China	27877.1	686607	919.1
Solomon Islands	1429.2	707851	-47.8
Bhutan	2314.5	777486	-15.4
Guyana	8735.5	804567	219.3
Comoros	1113.7	821625	-59.3
Fiji	4107.9	924610	50.2
Djibouti	3212.3	1105557	17.4
Eswatini	4678	1192271	71
Cyprus	25506.5	1244188	832.4
Mauritius	12249.2	1266334	347.8
Timor-Leste	2722.5	1320942	-0.5
Estonia	28890.9	1330932	956.1
Bahrain	34250.9	1463265	1152.1
Trinidad and Tobago	21633.2	1425663	690.8
Source: Own derivation using WDI Online Database (2023).			

3.12 External Competitiveness

The competitiveness of a country can be evaluated by utilizing a range of indicators that offer diverse perspectives on its economic performance and potential in the global marketplace. In this regard, the current account deficit refers to a situation where a country's total imports of goods, services and investment income exceed its total exports of goods, services and investment income over a given period. In simpler terms, it means that a country is spending more on foreign goods, services and investments than it is earning from its own exports. The current account balance as a percentage of GDP is negative in small countries (see **Table 38** below) and typically gets smaller as the population size of the economies under consideration, increase. Additionally, Caricom small states with a population less than 5mn tend to have very large current account deficits and indeed among all the categories of small states, those in the Caricom on average, have the largest current account deficits.

Given its structure of production, Curaçao persistently runs huge current account deficits. These deficits in Curaçao is higher than in the listed comparator states. As was seen earlier in the discussion, the current account deficit is largely conditioned by the deficit on trade in goods.

Table 37: Current account balance (% of GDP), average annual.

Countries by Population size	1980-1989	1990-1999	2000-2009	2010-2019	2020-2021
less than 500,000	-5.80	-7.00	-10.14	-3.93	-5.60
500,000 to 1mn	-9.25	-4.83	-7.73	-7.85	-8.44
1mn to 2mn	-6.40	-5.49	18.48	8.73	-1.42
2mn to 5mn	-2.73	-5.31	-1.51	-2.65	-2.21
5mn to 100mn	-4.13	-3.64	-1.36	-3.03	-0.92
more than 100mn	-1.90	-0.51	1.14	-0.80	-0.54
Caricom small states < 5mn	-8.69	-8.08	-10.38	-8.45	-12.26
Caricom small states less Guyana <5mn	-7.08	-7.22	-10.54	-8.02	-11.87
non Caricom small states <5mn	-4.07	-5.13	-0.46	-0.85	-2.45
all small states <5mn	-5.42	-5.77	-2.45	-2.26	-4.29
all small states less Guy <5mn	-4.90	-5.55	-2.35	-2.10	-4.09
Curaçao and its Comparators:					
Curaçao	n.a.	n.a.	n.a.	-22.82*	-24.84
Barbados	-2.80	1.10	-7.87	-7.00	n.a.
Antigua and Barbuda	-17.97	-4.41	-15.83	-8.58	-16.75
St. Lucia	-9.20	-8.47	-15.24	-5.12	-11.55
Grenada	-8.20	-14.09	-24.38	-18.27	-23.60
Seychelles	-13.56	-5.71	-15.50	-12.88	-12.17
*2011-2019					
Source: Author's calculations using WDI Online Database (2023).					
Description of Data: "Current account balance is the sum of net exports of goods and services, net primary income, and net secondary income."					

Availability of data is being assess by Mary-Rose

GDP current US\$ Data on WDI is 2011-2021

3.12.1 Terms of Trade Volatility

Table 39 shows the average net barter terms of trade (NBTT) index for the period 2010-2019 and its standard deviation which is used as a proxy to represent terms of trade volatility. With 2000 as a base year Caricom as a whole experienced improvements in its NBTT with similar trends shared by non-Caricom small states. Note that the terms of trade for Curaçao in 2019 was not significantly better than in 2000 but this is not of vast importance as Curaçao is a heavily services-oriented economy. For comparator states like St. Lucia, Grenada, Antigua and Barbuda and Seychelles the change in the terms of trade was adverse between 2000 and 2019.

To analyze terms of trade volatility and to be considerate of the outlier values, countries with a standard deviation on their NBTT index exceeding 15 were excluded. The findings from this subsequent dataset of 150 countries are presented in column 6 below. The results indicate that smaller countries with populations less than 500,000 and 500,000 to 1 million tend to exhibit higher levels of terms of trade volatility compared to larger countries with populations ranging from 1 million to 5 million. Among Caricom small states with populations less than 5 million, there is a slightly lower

terms of trade volatility of 5.19 compared to non-Caricom small states with a volatility of 5.42 for the period 2010-2019. When examining Curaçao and its comparator countries, Seychelles demonstrates the lowest level of terms of trade volatility, while Grenada and St. Lucia exhibit the highest levels at 8.73 and 7.33, respectively.

Table 38: Net barter terms of trade index (2000 = 100), Average and Std. Dev. TOT, average annual.

Countries by Population size	2010	2019	2020	SD 2010-2019	SD TOT 2010-2019 (outliers, values >15 removed)
(1)	(2)	(3)	(4)	(5)	(6)
less than 500,000	101.91	101.86	102.77	8.85	6.04
500,000 to 1mn	111.91	115.07	121.42	8.71	6.60
1mn to 2mn	122.53	114.76	109.01	9.27	4.67
2mn to 5mn	124.23	117.88	114.45	11.77	4.29
5mn to 100mn	130.91	126.70	124.22	12.37	5.74
more than 100mn	107.23	103.70	100.26	9.70	5.31
Caricom small states < 5mn	105.50	104.72	110.41	5.19	5.19
Caricom small states less Guyana <5mn	103.68	102.70	106.73	5.07	5.07
non Caricom small states <5mn	116.07	112.45	110.13	11.04	5.42
all small states <5mn	114.02	110.97	110.19	9.92	6.04
all small states less Guyana <5mn	113.82	110.70	109.52	9.97	5.36
Curaçao and its Comparators:					
Curaçao		104.93	100.67	5.38	5.38
Barbados	109.69	108.11	112.20	3.36	3.36
Antigua and Barbuda	75.92	78.46	75.00	3.36	3.36
St. Lucia	106.24	95.71	111.94	7.33	7.33
Grenada	94.91	97.75	97.61	8.73	8.73
Seychelles	76.55	80.02	75.48	2.26	2.26
For all categories TOT SD values of >15 were treated as outliers and removed from the dataset. These countries are as follows: - less than 500,000 - Nauru (19.04), Guam (16.29), Sao Tome and Principe (18.98) and Brunei Darussalam (42.97). 500,000 to 1mn – Comoros (25.57) 1mn to 2mn - Equatorial Guinea 46.063 2mn to 5mn – Gabon (35.64), Qatar (40.31), Mongolia (20.44), Kuwait (34.95), Oman (58.62) and Mauritania (15.29). 5mn to 100mn - Norway (19.44), Congo, Rep. (23.11), Turkmenistan (44.60), Libya (45.31), Nicaragua (34.70), Papua New Guinea (19.84), Azerbaijan (36.90), Honduras (27.62), Haiti (31.29), Bolivia (31.95), Guatemala (29.30), Chad (42.48), Ecuador (21.18), Kazakhstan (34.22), Australia (16.90), Venezuela, RB (120.87), Yemen, Rep. (17.19), Angola (48.71), Saudi Arabia (22.94), Iraq (51.41), Algeria (48.37), Sudan (25.43), Colombia (25.12) and Iran, Islamic Rep. (21.78). more than 100mn - Russian Federation (30.38) and Nigeria (37.31)					
Source: WDI Online Database (2023).					
Description of Data: "Net barter terms of trade index is calculated as the percentage ratio of the export unit value indexes to the import unit value indexes, measured relative to the base year 2000. Unit value indexes are based on data reported by countries that demonstrate consistency under UNCTAD quality controls, supplemented by UNCTAD's estimates using the previous year's trade values at the Standard International Trade Classification three-digit level as weights. To improve data coverage, especially for the latest periods, UNCTAD constructs a set of average prices indexes at the three-digit product classification of the Standard International Trade Classification revision 3 using					

3.12.2 Liner Shipping Connectivity Index

The geographical remoteness of some small islands, coupled with the high cost of shipping, leads to increased expenses for both exports and imports, particularly for essential capital goods. **Table 40** below highlights the average annual Liner shipping connectivity index which seeks to measure how well countries are connected to global shipping networks. As can be seen all categories of smaller states are less connected relative to their larger counterparts. More specifically, looking at the period average 2020-2021 countries with a population size less than 500,000 are approximately 8 times less connected than countries with a population size of more than 100 million. For this same period (2020-2021) the data demonstrates that Caricom small states are less connected than non-Caricom small states.

Table 39: Liner shipping connectivity index (maximum value in 2004 = 100), average annual.

Countries by Population size	2000-2009	2010-2019	2020-2021
less than 500,000	5.35	6.36	6.90
500,000 to 1mn	9.59	12.05	12.62
1mn to 2mn	10.54	15.28	17.63
2mn to 5mn	12.53	16.45	20.51
5mn to 100mn	24.23	30.76	36.28
more than 100mn	43.29	51.15	57.80
Caricom small states < 5mn	9.12	10.96	11.25
Caricom small states less Guyana <5mn	9.24	11.11	11.47
non Caricom small states <5mn	8.77	11.52	13.93
all small states <5mn	8.85	11.40	13.37
all small states less Guy <5mn	8.87	11.44	13.45
Curaçao and its comparators:			
Curaçao	n.a.	9.24*	8.07
Barbados	7.78	8.04	7.51
Antigua and Barbuda	5.86	5.07	5.10
St. Lucia	6.51	6.84	5.61
Grenada	5.91	6.38	5.91
Seychelles	6.41	8.73	8.50

*2011-2019

Source: Author's calculations using WDI Online Database (2023).

Description of data: "The Liner Shipping Connectivity Index captures how well countries are connected to global shipping networks. It is computed by the United Nations Conference on Trade and Development (UNCTAD) based on five components of the maritime transport sector: number of ships, their container-carrying capacity, maximum vessel size, number of services, and number of companies that deploy container ships in a country's ports. For each component a country's value is divided by the maximum value of each component in 2004, the five components are averaged for each country, and the average is divided by the maximum average for 2004 and multiplied by 100. The index generates a value of 100 for the country with the highest average index in 2004. The underlying data come from Containerisation International Online" (WDI 2023).

3.12.3 Real Effective Exchange Rate

The Real Effective Exchange Rate (REER) is a measure that takes into account the relative value of a country's currency against a basket of other currencies, adjusted for inflation and trade weights. It is used to assess and compare the overall competitiveness of a country's currency in the international market. Smaller countries tend to have REER that are more appreciated than larger countries (see **Table 41**), likely because of their higher domestic inflation rates.

Table 40: Real effective exchange rate index (2010 = 100), average annual.

Countries by Population size	1980-1989	1990-1999	2000-2009	2010-2019	2020-2021
less than 500,000	120.38	110.36	107.28	102.34	100.90
500,000 to 1mn	310.04	106.72	101.09	100.99	101.17
1mn to 2mn	121.44	87.39	94.22	103.16	106.03
2mn to 5mn	180.88	114.77	95.48	98.16	101.53
5mn to 100mn	176.62	104.90	98.97	102.13	101.79
more than 100mn	144.86	102.18	93.44	99.74	97.42
Caricom small states < 5mn	192.91	107.82	102.69	102.25	101.57
Caricom small states less Guyana <5mn	117.71	107.06	103.69	102.24	100.82
non Caricom small states <5mn	143.68	106.79	98.93	100.23	102.33
all small states <5mn	166.06	107.16	100.27	100.95	102.06
all small states less Guy <5mn	132.55	106.88	100.52	100.90	101.82
Curaçao and its Comparators:					
Curaçao*	n.a.	n.a.	103	102	105
Barbados	n.a.	n.a.	n.a.	n.a.	n.a.
Antigua and Barbuda	144.71	123.24	108.24	105.13	109.56
St. Lucia	109.68	103.12	105.11	101.78	96.92
Grenada	117.54	107.56	104.42	96.97	90.46
Seychelles	n.a.	n.a.	n.a.	n.a.	n.a.
* Approximated (using IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions 2022), excludes Venezuela.					
Source: Author's calculations using WDI Online Database (2023).					

Note that Curaçao's real effective exchange rate when Venezuela is excluded²¹ stood at approximately 105 for the time period 2020-2021 (2010=100), which is not significantly over valued and is in line with peer comparator states.

²¹ In Curaçao, the Real Effective Exchange Rate (REER) calculated using trading partner weights over the past decade indicates a significant appreciation primarily driven by the influence of Venezuela. However, when Venezuela is excluded from the analysis, which is more appropriate considering the negligible trade with Venezuela, the REER remains relatively stable (IMF Article IV, August 2022).

Table 41: Foreign direct investment, net inflows (% of GDP), average annual.

Countries by Population size	1980-1989	1990-1999	2000-2009	2010-2019	2020-2021
less than 500,000	3.07	5.09	26.59	19.17	5.07
500,000 to 1mn	-0.31	2.03	21.82	10.60	14.79
1mn to 2mn	1.73	9.04	9.44	15.21	-5.81
2mn to 5mn	0.88	2.03	4.83	4.27	3.92
5mn to 100mn	0.72	2.24	4.60	4.21	3.01
more than 100mn	0.63	1.26	2.14	1.88	1.66
Caricom small states < 5mn	2.55	5.43	8.29	6.71	6.76
Caricom small states less Guyana <5mn	2.74	5.23	8.38	7.35	7.31
non Caricom small states <5mn	1.28	3.64	17.29	13.57	3.78
all small states <5mn	1.64	4.03	15.60	12.31	4.35
all small states less Guy <5mn	1.67	3.90	15.74	12.35	4.03
Curaçao and its Comparators:					
Curaçao	n.a.	n.a.	n.a.	3.65*	5.82
Barbados	1.64	1.00	7.45	8.57	5.27
Antigua and Barbuda	9.27	5.73	15.03	8.60	11.13
St. Lucia	8.56	6.38	10.34	5.52	4.10
Grenada	2.73	6.80	12.77	10.99	13.55
Seychelles	6.95	6.49	11.21	15.84	7.01
*2011-2019					
Source: Author's calculations using WDI Online Database (2023).					
Description of Data: "Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors and is divided by GDP" (WDI Online Database, 2023).					

We will double-check availability of the data.

As per **Table 42** and not surprisingly smaller countries tend to have larger FDI net inflows as a proportion of GDP than larger countries. This has been consistently so across the years. Interestingly, Caricom small states with population of less than 5 million tend to have the highest ranking in terms of FDI net inflows as a percent of GDP across all the categories listed in the table above. The fundamental question is in the context of Curaçao, is what can be done to stimulate additional inflows of FDI into the economy, which for the period 2020-2021 stood at 5.82% of GDP. In this regard the Free Zones in Curaçao represent a strong comparative base to attract FDI. They should be expanded but critically they must focus on export revenue generation and not be nurtured as an additional burden to the current account balance.

3.12.4 Personal Remittances

The reliance by many small states on remittances to help finance their current account deficits also presents a key source of vulnerability for these small states. As can be seen in **Table 43** below the smallest sized states (those with a population of less than 500,000) in general have relied much more heavily on remittances than their larger counterparts considering the various time periods.

Table 42: Personal remittances, received (% of GDP), average annual.

Countries by Population Size	2000-2009	2010-2019	2020-2021
less than 500,000	6.59	6.53	7.63
500,000 to 1mn	4.74	5.38	7.62
1mn to 2mn	3.68	3.75	3.97
2mn to 5mn	6.97	5.89	7.04
5mn to 100mn	3.03	3.86	4.62
more than 100mn	2.84	3.34	3.43
Caricom small states < 5mn	4.64	4.70	6.55
Caricom small states less Guyana <5mn	4.08	4.37	6.48
non Caricom small states <5mn	6.31	5.96	6.96
all small states <5mn	6.01	5.74	6.89
all small states less Guy <5mn	5.93	5.70	6.88
Curaçao and its Comparators:			
Curaçao		4.96*	5.27
Barbados	3.20	2.55	0.00**
Antigua and Barbuda	1.89	1.97	2.86
St. Lucia	2.37	2.00	3.73
Grenada	4.50	4.12	6.67
Seychelles	0.79	1.48	0.72
*2011-2019			
**2020 is used as a proxy.			
Source: Author's calculations using WDI Online Database (2023).			
Definition: "Personal remittances comprise personal transfers and compensation of employees. Personal transfers consist of all current transfers in cash or in kind made or received by resident households to or from nonresident households. Personal transfers thus include all current transfers between resident and nonresident individuals. Compensation of employees refers to the income of border, seasonal, and other short-term workers who are employed in an economy where they are not resident and of residents employed by nonresident entities. Data are the sum of two items defined in the sixth edition of the IMF's Balance of Payments Manual: personal transfers and compensation of employees" (WDI Online Database, 2023).			

Caricom small states receive marginally less in personal remittances as a percent of GDP from non-Caricom small states. Curaçao has a huge diaspora abroad. Policymakers in Curaçao should investigate avenues to lower remittance sending fees so that a greater inflow of remittances can enter the country. Increased financial inflows into Curaçao can provide much needed resources for various forms of capital formation projects for new and existing entrepreneurs.

Table 43: Ease of doing business score.

Countries by Population size	2015	2016	2017	2018	2019
less than 500,000	56.89	57.30	57.89	58.34	58.46
500,000 to 1mn	57.92	58.74	59.40	59.35	59.62
1mn to 2mn	61.75	62.48	63.68	64.89	66.06
2mn to 5mn	61.55	62.71	63.55	63.92	64.73
5mn to 100mn	59.64	60.14	60.93	61.98	62.87
more than 100mn	59.67	60.38	61.48	63.73	65.67
Caricom small states < 5mn	57.36	57.75	58.04	57.98	58.22
Caricom small states less Guyana <5mn	57.89	57.87	58.15	58.17	58.44
non Caricom small states <5mn	60.18	61.09	62.01	62.54	63.18
all small states <5mn	59.62	60.43	61.23	61.65	62.22
all small states less Guyana <5mn	59.75	60.49	61.29	61.74	62.32
Curaçao and its Comparators:					
Curaçao	n.a.	n.a.	n.a.	n.a.	n.a.
Barbados	57.68	57.76	57.67	57.67	57.91
Antigua and Barbuda	59.24	58.81	59.80	59.86	60.28
St. Lucia	63.50	63.48	63.57	63.63	63.65
Grenada	53.57	53.41	53.31	53.37	53.44
Seychelles	58.96	60.50	61.51	61.50	61.70
Source: Author's Calculations using WITS Online Database (2023) and WDI Online Database (2023). (0 = lowest performance to 100 = best performance).					
Definition: "The ease of doing business scores benchmark economies with respect to regulatory best practice, showing the proximity to the best regulatory performance on each Doing Business indicator. An economy's score is indicated on a scale from 0 to 100, where 0 represents the worst regulatory performance and 100 the best regulatory performance" (WDI Online Database, 2023).					

The data in **Table 44** above indicates that non-Caricom small states generally exhibit a stronger ease of doing business setting compared to Caricom small states. A better business environment likely helps to attract more capital, both domestic and foreign (UNCTAD, 2017), (OSCE, 2006) and (OECD, 2022).

It is assumed herein that the EODB score in Curaçao is the average of the listed comparator states. To achieve sustained and inclusive growth, it is crucial for Curaçao to implement reforms promptly that address governance weaknesses and the risks of corruption. In this regard note that the "Landspakket" outlines essential reform priorities across various governance dimensions, as detailed in Annex II of the IMF 2022 Article IV²² document on Curaçao. It is important for the authorities to place additional emphasis on evaluating anti-corruption institutions, enhancing enforcement mechanisms, and fortifying them to combat corruption effectively.

Specifically, to improve the scores for Curaçao in the short term and based on the, (Executive Summary Red Tape and Cost of Doing Business Curaçao, 2021), the following key areas should be prioritized:

²² (IMF, Kingdom of the Netherlands-Curaçao and Sint Maarten, Article IV Consultation Discussions, 2022).

Enhancing Business Regulations: Enhance the accessibility and transparency of business regulations by presenting information in a clear and user-friendly manner, particularly through digital platforms. This will make it easier for businesses to navigate the regulatory environment. **Digitizing and Automating Processes:** Streamline and automate both front and back-office processes to improve convenience for businesses and increase efficiency within the government. This includes accelerating the implementation of existing digitalization plans and ideas, benefiting not only government agencies but also business service providers. **Strengthening Enforcement and Quality:** Improve enforcement mechanisms and the overall quality of regulatory compliance. This can be achieved through effective inspections and establishing relevant complaints desks to address any issues or concerns. **Enhancing Employee Training:** Provide further training opportunities for employees within the government and external stakeholders. This should include training in digitalization, inspection procedures, and the importance of transparency, accessibility, and objective criteria in regulatory practices. **Cost-Effective Business Services:** Promote cost-effectiveness in the provision of business services by the government. Foster healthy competition among necessary service providers, such as the Chamber of Commerce and Industry, civil-law notaries, etc., to align their costs with the scale of operations and the needs of small and medium-sized enterprises (SMEs).

3.13 Human Development Index

Table 44: UNDP HDI values, average annual.

Countries by Population size	Average, 2021
less than 500,000	0.75
500,000 to 1mn	0.75
1mn to 2mn	0.74
2mn to 5mn	0.73
5mn to 100mn	0.71
more than 100mn	0.71
Caricom small states < 5mn	0.75
Caricom small states less Guyana <5mn	0.76
non Caricom small states <5mn	0.74
all small states <5mn	0.74
all small states less Guy <5mn	0.74
Curaçao and its Comparators:	2021 values
Curaçao*	0.81 (2012)
Barbados	0.79
Antigua and Barbuda	0.79
St. Lucia	0.72
Grenada	0.80
Seychelles	0.79
HDI values range 0-1, higher values indicate greater levels of human development, lower values indicate lower levels of human development.	

* 2012 value sourced from [Human Development Index \(HDI\): Korte Notitie inzake de berekening van de voorlopige Human Development Index \(HDI\) voor Curaçao \(Wayback Machine \(archive.org\)\)](#).

Source: Author's Calculations using WDI Online Database (2023) and UNDP (2023) [Human Development Index | Human Development Reports \(undp.org\)](#).

The data on the HDI (shown in **Table 45**) indicates that the Caricom sphere with and without Guyana has one the highest HDI in the world and indeed among the categories of grouped regions listed above by population size, has the highest overall HDI value. Curaçao had an HDI score for 2012 of 0.81 which is higher than all of the listed comparator states (although their data points are for 2021). Curaçao thus has a relatively high “standard of living”, and this can act as an important basis to help attract resources to the economy via the Residency by Investment program.

3.14 Intentional Homicides

Countries with a population of less than 500,000 experience more than double the rate of intentional homicides per 100,000 people as compared to countries with a population ranging from 5 to 100 million (see **Table 46**). Alarming in Caricom small states, the level of homicides is more than six times higher than the average in non-Caricom states for 2021. Fortunately, Curaçao has a very low level of homicides per capita, and this can be marketed as a favourable factor as part of the Residency Investment program²³ is broadcasted.

Table 45: Intentional homicides (per 100,000 people), average annual.

Countries by Population size	2021
less than 500,000	17.47
500,000 to 1mn	5.08
1mn to 2mn	7.29
2mn to 5mn	8.06
5mn to 100mn	5.36
more than 100mn	8.15
Caricom small states < 5mn	23.79
Caricom small states less Guyana <5mn	24.42
non Caricom small states <5mn	4.11
all small states <5mn	10.67
all small states less Guy <5mn	10.53
Curaçao and its Comparators:	
Curaçao	5.3*
Barbados	11.38
Antigua and Barbuda	17.16

²³ The Residency by Investment Permit Program in Curaçao enables investors to acquire residency permits in the country, and after a period of five years, they become eligible to apply for Dutch citizenship. Curaçao, as an autonomous country within the Dutch Kingdom, is located in the Southern Caribbean and is situated near the coast of Venezuela (La Vida Golden Visas, 2023). The statement that said program enables investors to acquire residency permits in Curaçao, is correct but if after a period of five years, they become eligible to apply for Dutch citizenship I'm not sure about. So this statement is being verified with the colleagues of immigration.

St. Lucia	38.96
Grenada	4.01
Seychelles	4.70
*Source: Curaçao Bureau of Statistics (2023).	
Source: WDI Online Database (2023).	
Description of Data: “ <i>Intentional homicides are estimates of unlawful homicides purposely inflicted as a result of domestic disputes, interpersonal violence, violent conflicts over land resources, intergang violence over turf or control, and predatory violence and killing by armed groups. Intentional homicide does not include all intentional killing; the difference is usually in the organization of the killing. Individuals or small groups usually commit homicide, whereas killing in armed conflict is usually committed by fairly cohesive groups of up to several hundred members and is thus usually excluded</i> ” (WDI 2023).	

3.15 Internet Connectivity

Internet connectivity is important to trade as it helps businesses gain access to global markets and can to connect with customers and suppliers worldwide. This allows for expanded market reach and opportunities for growth. Good internet connectivity enables instant communication and seamless information exchange between trading partners. Businesses can communicate with suppliers, buyers, and logistic providers in real-time, enhancing decision-making and trade efficiency.

Table 46: Individuals using the Internet (% of population), average annual.

Countries by Population size	2020-2021
less than 500,000	76.90
500,000 to 1mn	75.45
1mn to 2mn	72.92
2mn to 5mn	70.06
5mn to 100mn	62.67
more than 100mn	60.24
Caricom small states < 5mn	79.74
Caricom small states less Guyana <5mn	79.45
non Caricom small states <5mn	72.17
all small states <5mn	73.64
all small states less Guy <5mn	73.49
Curaçao and its Comparators:	
Curaçao	64.99*
Barbados	84.14
Antigua and Barbuda	95.67
St. Lucia	77.82
Grenada	76.24
Seychelles	78.53
*Average of 2016 and 2017.	
Source: Author's calculations using WDI Online Database (2023).	

Description of Data: *“Internet users are individuals who have used the Internet (from any location) in the last 3 months. The Internet can be used via a computer, mobile phone, personal digital assistant, games machine, digital TV etc” (WDI 2023).*

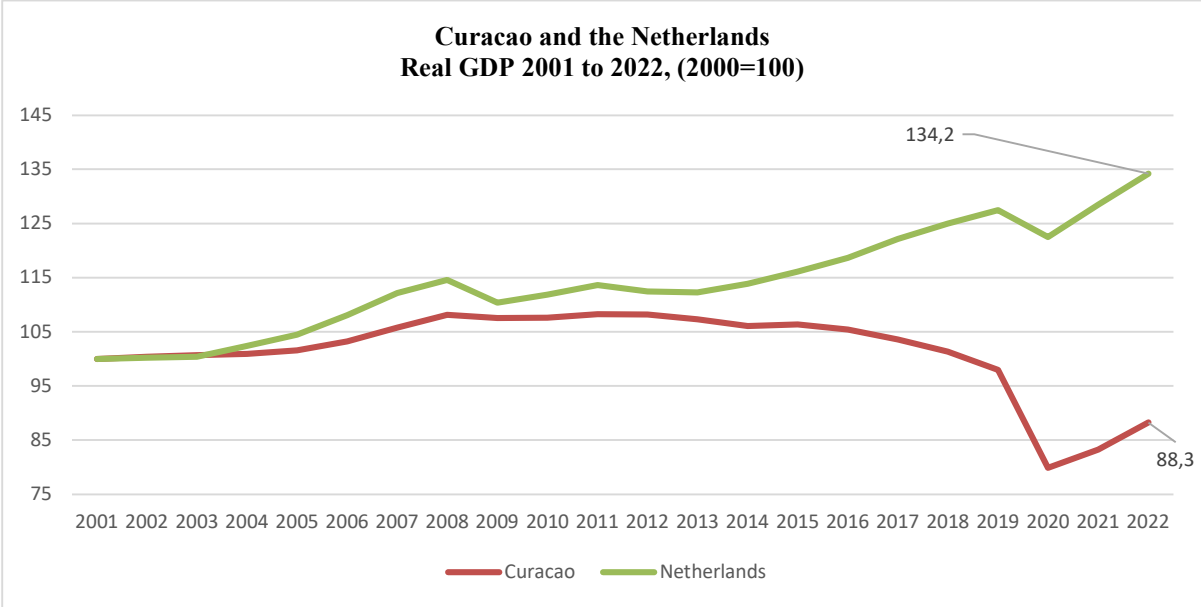
In terms of the level of internet connectivity, small states are well connected and Caricom small states are even more connected than other small states (shown in **Table 47**). With some countries such as Barbados standing at 75.3%. The available data points to 64.99% connectivity for Curaçao for the period 2010-2019, using the average of 2016 and 2017 on this, it is likely to improve even further by 2023.

Chapter 4: Some suggestions as to how to move forward

International trade is at the center of the Curaçao economy. However, two of the three areas on which the country thrives, namely oil refining and financial services have not been doing very well and the third area of tourism, in the context of the Covid-19 pandemic, also stuttered and is only now recovering.

An examination of the Curaçao economy shows that it has been running very large and persistent current account deficits mainly on account of the trend in the goods segment of the balance of payments which is not fully offset by the trade in services balance. The NES focuses strongly on earning foreign exchange from the services sector. The NES prioritizes those areas according to policymakers that have the greatest possibility to generate jobs and to earn foreign exchange. The priority areas are creative services, educational services, financial services, IT services, port and marine services and the blue economy.

A careful look at the data would show that real output per worker in Curaçao has fallen in the last decade and there is a mismatch between skills produced on the island and that demanded by the business community. There is also, according to various sources a high dropout rate in schools and therefore a relatively high level of unskilled workers. The island also suffers from a significant brain drain, as a lot of young skilled people leave the islands given the lack of economic opportunities. Some of the skilled migration to the Netherlands may be related to the sharp differences in the growth of real GDP, shown in **Figure 8** below.



Source: WDI Online Database (2023).

Figure 8: Real GDP 2001 to 2022, (2000=100), Curaçao and the Netherlands.

In this regard, it is critical to stimulate more investment in Curaçao, from both local and foreign investors. Access to finance is a critical issue that is constraining the development process and the level of poverty (resulting in part from the relatively high unemployment rate) must be addressed. The unemployment rate stood at 19% in 2022 and youth unemployment is very high (29.8% in 2022). The low LFPR (the Economic Bulletin in June 2023 pitched it at 51% for 2022) adversely impacts on the amount of tax revenue collected by the government of Curaçao. Many skilled and wealthy persons according to the IMF (2022) and the Curaçao Economic Bulletin (2023) have left Curaçao and this has created a worsened dependency situation.

4.1 The Way Forward

Curaçao applied to join the WTO in 2020 and has taken some bold and important steps to forge PSTA with Colombia, Suriname, Aruba, TT, Cuba and Dominican Republic as well as applying for membership in Caricom. The most advanced PSTA is with Colombia. Curaçao would need to do a detailed technical assessment of the welfare benefits of these different trading agreements. The government will need to look at the import structure of these potential trade partners and how it lines up against the export structure of Curaçao. The government of Curaçao would also need to assess the revealed comparative advantage sectors in Curaçao and to determine what are the associated missed opportunities (and rising stars and declining stars) with these bilateral trade partners. These are very critical steps that can help guide the allocation of investment decisions within Curaçao in the medium term.

The idea of joining Caricom is a fantastic one. The trade officials would need to consider a simulation using a partial equilibrium model, as to how Curaçao will benefit from joining this Free Trade Area (FTA) as it would be a “small country” in a “large FTA”. In particular, the government should assess the revenue loss and the consumer surplus to be gained and by extension the associated “welfare” impact.

Whilst the free zone area has been generating a reasonable turnover (see **Table 48**), it is surprising that it “appears” as a net foreign exchange user and perhaps the policy makers in Curaçao would want to insist that the firms in the Free Zone generate more foreign exchange than they use. Given that only a small proportion of the Free Zone is used for manufacturing activity, policy makers may want to rethink such an approach as manufacturing can provide knowledge and technological spillovers and also can provide more sustainable jobs.

Table 47: Curaçao's Exports and Imports, Free Economic Zones (in USD), 2016-2022.

EXPORTS FREE ECONOMIC ZONES (in USD)							
	2016	2017	2018	2019	2020	2021	2022
Habour Free Economic Zone	75 million	75 million	114 million	131 million	59 million	39 million	52 million
Airport Free Economic Zone	348 million	552 million	205 million	36 million	32 million	33 million	31 million
Total Free Economic Zones	423 million	627 million	319 million	167 million	91 million	72 million	83 million
IMPORTS FREE ECONOMIC ZONES (in USD)							
	2016	2017	2018	2019	2020	2021	2022
Habour Free Economic Zone	86 million	88 million	129 million	88 million	53 million	48 million	72 million
Airport Free Economic Zone	337 million	544 million	197 million	30 million	30 million	31 million	33 million
Total Free Economic Zones	423 million	632 million	326 million	118 million	83 million	79 million	105 million

Source: Curinde (June, 2023).

Curaçao has a relatively high level of tourism inflows. However, its agricultural production is quite low. The government of Curaçao should consider establishing an Agricultural Free Zone Park that caters to the tourism sector both agricultural and animal produce. Such a park can strengthen national food security, reduce food imports and stimulate more employment.

Curaçao would have to look at ways to attract citizens to its country, whilst attracting human capital. In this regard Curaçao would need to improve their Residency Investment Program (The Curaçao Residency Investment Program started in 2014 and has been mainly used by the Venezuelans. Between 2014 and 2019 for example, of the 126 investor permits granted, 55 alone were taken by investors from Venezuela).

Certainly, it is surprising that Curaçao is a net “exporter” of remittances and policymakers may want to look carefully at this situation, given the relatively large Curaçaoan diaspora abroad.

Table 48: Workers' remittances (income/inflows) and Workers' remittances (expenditures/outflows), (NAF mns) for the period 2010-2022.

Year	Workers' remittances (income/inflows) NAF mns	Workers' remittances (expenditures/outflows) NAF mns
2010	8.7	77.7
2011	11.4	79.4
2012	16.0	84.2
2013	14.1	86.3
2014	13.5	84.9
2015	9.4	100.5
2016	14.7	64.4
2017	17.6	57.4
2018	33.2	128.6
2019	33.2	122.9
2020	30.9	102.3
2021	36.1	99.7
2022	35.9	114.2

Source: (Centrale Bank Curacao & Sint Maarten, 2023).

Transnational education is a valuable, profitable, niche export area that Curaçao should continue to pursue. It is the opinion of this research exercise that Curaçao consider the opening of two further offshore medical campuses akin to the University of St Georges in Grenada (St. Georges University brings in an average per annum 8,000 (new and returning) students or about eight percent of the population of Grenada. The University contributes about US\$100mn to the economy per annum and employs about 600 Grenadians making it the largest private sector employer) (as highlighted in **Table 49**).

The tourism product in Curaçao is relatively cheaper than many other Caribbean destinations. In this regard, policy makers should aggressively pursue increasing the number of hotel rooms on the island as well as the proportion of these rooms that qualify as higher-end products. This can help Curaçao increase the amount of revenue, employment and foreign exchange that tourism generates for the island.

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